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ENVIRONMENTAL COMPLIANCE
ASSESSMENT:

PART I BARRE FALLS DAM
 HUBBARDSTON, MASSACHUSETTS

PART II NEW ENGLAND DIVISION
 ENVIRONMENTAL LABORATORY
 HUBBARDSTON, MASSACHUSETTS

PRELIMINARY FINDINGS REPORT
U.S. Army Corps of Engineers
New England Division
424 Trapelo Road
Waltham, Massachusetts
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US Army Corps
of Engineers
New England Division

March 1993

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13. ABSTRACT (Maximum 200 words) The environmental compliance assessment of Barre Falls Dam and the New England Division Environmental Laboratory in Hubbardston, MA was conducted as part of the U.S. Army Corps of Engineers Environmental Review Guide for Operations (ERGO) program. The findings at Barre Falls Dam are as follows: There were three Major Deficiencies (Problems that require action and pose a threat to human health, safety or to the environment); eleven Minor Deficiencies (Deficiency that is mostly administrative in nature which requires monitoring or planning for future mitigation); and twelve Management Practices (Items noted are not specifically covered by laws or regulations; however, they still require management attention). The findings at the New England Division Environmental Laboratory are as follows: There were three Major Deficiencies; four Minor Deficiencies; and four Management Practices. Overall, both facilities were well maintained as demonstrated by the lack of serious environmental deficiencies.				
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5 March 1993

MEMORANDUM THRU Chief, Natural Resource Management Branch *W*THRU Chief, Project Project Operations and Readiness Division *PK*

FOR Director of Operations

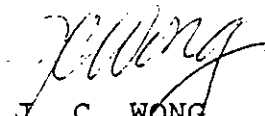
SUBJECT: Environmental Compliance Assessment of Barre Falls Dam and NED Environmental Laboratory

1. Attached please find the Environmental Compliance Assessment of Barre Falls Dam and the NED Environmental Lab, utilizing the Environmental Review Guide for Operations (ERGO).
2. This compliance assessment was prepared by the NED ERGO Team, Bruce Williams (NED-OD-P), Jim Law (NED-OD-P), Mike Penko (NED-PL-IA), Townsend Barker and Vicki Volz (NED-ED-WQ), Jim Peck (NED-SO), and Anne Laster (NED-RE).
3. Upon approval of the assessment, the Project Manager of Barre Falls Dam and the Chief, Environmental Lab will each develop an action plan to prioritize and correct findings identified in the ERGO assessment. In order that resources are programmed and dedicated to correct these problems, recommend that remediation which can be performed as routine maintenance work be completed within the next 3 years, other work should be programmed in the budget process for completion within 5 years.
4. I recommend your approval for implementation.

Atch


R. B. WILLIAMS
ERGO Program Manager

CMT 2

Environmental Compliance Assessment of Barre Falls Dam and NED Environmental Laboratory is approved X disapproved _____ for implementation as stated.
J. C. WONG
Director of Operationscf:
Director of Engineering
Chief, Environmental Lab

EXECUTIVE SUMMARY

An environmental compliance assessment of Barre Falls Dam and the New England Division Environmental Laboratory in Hubbardston, Massachusetts was conducted by an interdisciplinary team of New England Division environmental professionals from 31 August to 4 September 1992.

The assessment was conducted as part of the U.S. Army Corps of Engineers Environmental Review Guide for Operations (ERGO) program. The ERGO program, developed by the U.S. Army establishes the use of environmental compliance assessments to ensure compliance with all applicable Federal, state, local, Department of Defense (DoD), and U.S. Army environmental laws and regulations.

An overall ERGO compliance assessment considers 12 major environmental compliance categories. For each category, Federal, state and local laws, DoD and U.S. Army Corps of Engineers regulations, and good management practices are reviewed. Overall both facilities were well maintained as demonstrated by the lack of serious environmental deficiencies.

The findings at Barre Falls Dam are as follows:

Significant Deficiencies - None

Problems that pose a direct & immediate threat to human health, safety or to the environment.

Major Deficiencies - Three (3)

Problems that require action and pose a threat to human health, safety or to the environment.

Minor Deficiencies - Eleven (11)

Deficiency that is mostly administrative in nature. These problems require monitoring or planning for future mitigation.

Management Practices - Twelve (12)

Items noted are not specifically covered by laws or regulations; however, they still require management attention.

The findings at the New England Division Environmental Laboratory are as follows:

Significant Deficiencies - None

Problems that pose a direct & immediate threat to human health, safety or to the environment.

Major Deficiencies - Three (3)

Problems that require action and pose a threat to human health, safety or to the environment.

Minor Deficiencies - Four (4)

Deficiency that is mostly administrative in nature. These problems require monitoring or planning for future mitigation.

Management Practices - Four (4)

Items noted are not specifically covered by laws or regulations; however, they still require management attention.

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THE ERGO PROGRAM

The U.S. Army Corps of Engineers initiated the Environmental Review Guide for Operations (ERGO) program as a comprehensive self-evaluation and program management system for achieving, maintaining, and monitoring compliance with environmental laws and regulations at Corps of Engineers projects and facilities. Objectives of the ERGO program are to:

- 1) Enhance Corps of Engineers environmental compliance at federal, state, and local levels.
- 2) Improve Corps of Engineers environmental management.
- 3) Build supporting financial programs and budgets.
- 4) Assure supervisors their environmental programs are being implemented effectively in accordance with Corps of Engineers goals and objectives.

Periodic internal environmental compliance assessments have been deemed necessary. These evaluations are designed to assess environmental compliance and provide necessary feedback to supervisors for organizing, directing, and controlling environmental compliance and protection activities.

The Corps of Engineers ERGO program began with the creation of a steering committee. Arrangements were made with the U.S. Army Construction Engineering Research Laboratory (USACERL) to compile all relevant federal, Department of Defense, Army, and Corps of Engineers regulations to produce the draft manual.

The ERGO manual of environmental compliance assessments was pilot tested at various facilities in the Nashville District in May 1990. The program was field tested at several projects during FY 1991 and the manual was distributed as a final draft.

In January 1991, the Chief, Operations, Construction and Readiness Division (USACE), directed division and district operations offices to formally designate Environmental Compliance Coordinators (ECC's). Because it is responsible for the majority of USACE facilities, Operations Directorate was tasked with the development and implementation of the ERGO program.

New England Division's ERGO program became operational in August 1991. An ERGO review team was established by the ECC in October 1991. The ERGO program manager scheduled 8 projects, including Barre Falls Dam and the NED Environmental Laboratory, for completion of environmental compliance evaluations in FY-92.

ASSESSMENT PROCEDURES

The ERGO assessment of Barre Falls Dam and the NED Environmental Laboratory was conducted by a 6 person team comprised of NED personnel. The team followed a three phase approach. The first phase was to obtain pre-assessment information concerning its on-site activities (see Appendix A) and research applicable federal, state and local environmental regulations. This culminated in the development of site/facility-specific categories.

The second phase involved the on-site portion of the assessment. This involved an interview of project, district and/or regional management and staff, followed by a facility tour to obtain a general overview of facility operations. Typically, the team member would interview project staff responsible for a particular functional area, visually inspect the operations, and verify that required written documentation was in place. When possible, all deficiencies were reported to facility personnel. The team concluded the on-site portion of the assessment by briefing the project manager and staff to apprise them of the review team's preliminary findings.

The third phase involves developing the draft report and developing an action plan for addressing outstanding deficiencies. The evaluation of Barre Falls Dam and the NED Environmental Laboratory followed the above procedures and covered the elements set forth in the 12 ERGO compliance categories.

The assessment was conducted in accordance with the best professional judgement of the ERGO team members. It should be understood that the assessment is based on observations taken over a short span of time relative to the period under review. Efforts were directed toward reviewing major facets of environmental performance in the period covered, and therefore, it is important to recognize that this assessment may not necessarily identify all potential problems.

Successful completion of the site-specific environmental evaluation of Barre Falls Dam and the NED Environmental Laboratory was dependant on complete foreclosure of all information regarding the operation and maintenance activities at the project.

It should be noted that failure of a facility manager to provide complete or adequate information to the review team does not relieve the facility manager of the responsibility for compliance with environmental regulations.

ERGO PROGRAM OBJECTIVES

The Environmental Review Guide for Operations (ERGO) program is intended to serve as the primary tool for conducting environmental compliance evaluations at Corps of Engineer projects and facilities. The objectives of the program are to:

- 1) Compile applicable Federal and Engineering Regulations associated with Corps of Engineers operations and activities.
- 2) Synthesize environmental regulations, good management practices, and risk management issues into consistent and easy to use checklists.
- 3) Serve as a reference document for daily operations.
- 4) Serve as a standard for evaluation of environmental compliance.

DESCRIPTION OF REGULATORY COMPLIANCE

This section of the report presents a summary of findings in those categories that are governed by engineering regulations, engineering manuals, federal regulations, and state regulations. Non-regulatory items, which are referred to in this report as a management practices, are of a lower priority but require attention to correct.

Deficiencies noted in this evaluation will include the following information:

SIGNIFICANT DEFICIENCY:

A problem categorized as significant requires immediate attention. It poses, or has high likelihood of posing, a direct and immediate threat to human health, safety, the environment, or the installation mission.

MAJOR DEFICIENCY:

A problem categorized as major requires action, but not necessarily immediate action. It has the potential to result in a notice of violation from regulatory agencies. A major deficiency may pose a threat to human health, safety or the environment.

MINOR DEFICIENCY:

A minor deficiency is mostly administrative in nature, even though it might result in a notice of violation. It may also be a temporary or occasional instance of noncompliance.

MANAGEMENT PRACTICE:

A management practice is not considered a deficiency because it is not based on a specific regulatory requirement. Although items noted may not be specifically covered by regulation and are not assigned severity ratings, they still require management attention.

REGULATORY COMPLIANCE TABLE
for
BARRE FALLS DAM

COMPLIANCE CATEGORY	FINDINGS			
	SIG.	MAJ.	MIN.	MGT.
Air Emissions				1
Cultural and Historic Resources Management			1	
Hazardous Material Management		2	2	1
Hazardous Waste Management				2
Natural Resources Management			4	3
Pesticide Management				
Petroleum Oil and Lubricant (POL) Management				2
Solid Waste Management			1	1
Special Pollutants Management (Radon, Asbestos, PCB's, Noise)		1	1	1
Underground Storage Tanks (UST) Management				
Wastewater Management				
Water Quality Management			2	
Totals	0	3	11	11

REGULATORY COMPLIANCE TABLE
for
ENVIRONMENTAL LABORATORY

COMPLIANCE CATEGORY	FINDINGS			
	SIG.	MAJ.	MIN.	MGT.
Air Emissions			1	1
Cultural and Historic Resources Management				
Hazardous Material Management		2		1
Hazardous Waste Management			1	1
Natural Resources Management				
Pesticide Management				
Petroleum Oil and Lubricant (POL) Management				
Solid Waste Management			1	
Special Pollutants Management (Radon, Asbestos, PCB's, Noise)		1	1	1
Underground Storage Tanks (UST) Management				
Wastewater Management				
Water Quality Management				
Totals	0	3	4	4

PART I

ERG0 FINDINGS

BARRE FALLS DAM

AIR EMISSIONS MANAGEMENT

FINDING: Management Practice

CONDITION: Corps owned vehicles have not been inspected annually for air pollutant emissions.

CRITERIA: State of Massachusetts regulations (310 CMR 7.20) require yearly testing of motor vehicles for hydrocarbon and carbon monoxide emissions. Section 118 of the Federal Clean Air Act requires full federal compliance with state and local air quality regulations.

EFFECT: Unlawful levels of air pollutants may be released from project vehicles.

SOLUTION: Corps vehicles should be inspected yearly for emissions and necessary measures taken to correct any deficiencies.

COMMENT: Project Manager should contact NED Motor Transportation Officer to make arrangement to have annual emission testing.

FINDING: Barre Falls Dam currently has no vehicles equipped with air conditioning.

CULTURAL AND HISTORIC RESOURCES MANAGEMENT

FINDING: Minor Deficiency

CONDITION: Project has a reconnaissance level cultural resources inventory. Several prehistoric and historic sites identified in the survey require further evaluation.

CRITERIA: Corps facilities are required to locate, inventory, and nominate all sites that appear to qualify for listing on the National Register of Historic Places (16 USC 470, 36 CFR 60; 36 CFR 800, ER 1130-2-438).

EFFECT: Until further evaluation of the sites is conducted, the project will not be in full compliance with Section 106 of the National Historic Preservation Act. Cultural resources may be at risk.

SOLUTION: Program funding to further evaluate potentially significant cultural resource sites identified in reconnaissance survey.

HAZARDOUS MATERIAL MANAGEMENT

FINDING: Management Practice

CONDITION: Not all relevant regulations, directives, and guidance documents on hazardous materials are maintained at the facility. ER-200-2-2

CRITERIA: The following documents should be maintained and updated: 29 CFR 1910, 40 CFR 302, 49 CFR 172, 173, 178, 179, NEPA, ER 500-1-1, EM 385-1-1, applicable state/local regulations.

SOLUTION: Copies of all relevant materials will be distributed to the projects. Project Manager should maintain these materials in an organized and accessible manner and update as necessary.

COMMENTS: Knowledge of regulations required to assure safe and environmentally compatible handling of hazardous materials.

FINDING: Major Deficiency

CONDITION: Facility does not have a written Oil and Hazardous Substance Contingency Plan for spill events. ER 1130-2-434

CRITERIA: Facility required to have plan which includes the following items: designated storage areas; designated individual for spill response; periodic drills; appropriate equipment to manage spill; emergency medical procedures, hazard control materials; emergency phone numbers; decontamination procedures.

SOLUTION: Plans are being developed for all projects. They will be included in the Federal Response Plan and the Flood Emergency Plan.

COMMENTS: Plan is necessary to insure that proper and timely action is taken during spill events to minimize environmental harm and insure public health and safety.

FINDING: Project Manager should occasionally coordinate with the local fire department concerning types of hazardous chemicals used or stored at the facility, the areas used, and quantities used in a given operation.

COMMENTS: Coordination will provide valuable information for firefighters in terms of methods of extinguishing the blaze, maximizing personal safety, and notification / evacuation of adjoining populated areas.

FINDING: Minor Deficiency

CONDITION: Facility does not have a MSDS sheet for each hazardous chemical stored on site. 40 CFR 1910.1200 (q)(1) and 1910.1200 (q)(8)

CRITERIA: MSDS are to be on file and accessible to team members on all shifts in the workplace for each hazardous material used or stored.

EFFECT: In the absence of MSDS, project personnel may be unaware of hazards associated with certain chemicals or unable to take appropriate emergency action.

SOLUTION: Safety and Occupational Health Office is currently reviewing chemical lists obtained from each project. From this listing MSDS's will be distributed to the projects and stored in an orderly and highly visible fashion. Project Managers should independently obtain MSDS's when purchasing chemicals in the future.

COMMENTS: MSDS's are necessary to assure proper use of product and to mitigate harmful effects.

FINDING: Major Deficiency

CONDITION: Hydraulic oil (6 1/2 gallons) released from Corps tractor on reservoir property on 6/18/92 (see attached incident report). Project personnel reported the spill to the National Response Center (NRC) approx. 22 hrs. after the incident. 40 CFR 302.1-6

CRITERIA: 1. Verify that spill is in excess of reportable quantities
2. Verify that NRC notification procedure is in place within 2 hrs.

SOLUTION: NRC notification guidance was distributed to all projects in 1987. Division office to send updated guidance to all projects in near future. Updated guidance will stress need for all project personnel to become familiar with the notification procedure and to file the guidance with other emergency information.

COMMENTS: Although project personnel notified NRC within the required 24 hr. timeframe a more timely response would have been possible had field personnel been immediately aware of the NRC guidance memo. Delayed response could have resulted in contamination of surface or underground waters and greatly increased cleanup costs. In this instance contamination was confined to surficial soils with no aquatic impacts (see report).

FINDING: Minor Deficiency

CONDITION: 1. Inside flammable/combustible storage room does not meet certain specifications.
2. Storage room does not meet parameters for ventilation and containment specified in 29 CFR.1910.106(d)(4)

CRITERIA: 1) Fire resistant walls, sill or ramp separating adjacent rooms
2) Liquid tight floor/wall joints
3) Self closing fire doors
4) NEPA approved electrical wiring
5) Suitable capacity exhaust system
6) Clear isles. (29 CFR 1910.106 (d)(4))
7) A raised sill or ramp must be provided to adjacent rooms or buildings. Ventilation must provide for six changes of air per hour.

SOLUTION: Project Manager should construct a liquid tight sill at entrance of sufficient height to contain 110 % of the capacity of the largest container. An exhaust fan of sufficient capacity should be installed to avoid buildup of chemical fumes.

COMMENTS: 1. Sill will prevent spilled materials from migrating to adjacent floor drain.
2. Present wind-driven ventilating hood exhaust system does not provide sufficient air exchange. Poor ventilation in the paint room creates an unhealthful environment for team members.

HAZARDOUS WASTE MANAGEMENT

FINDING: Management Practice

CONDITION: Not all relevant regulation, directives, and guidance documents on hazardous materials are maintained at the facility.

CRITERIA: The following documents should be maintained and updated: CFR 260-271, 40 CFR 372, 49 CFR 172-179, NEPA, state hazardous waste regulations, policy letters, ER 1130-2-434.

SOLUTION: Copies of all relevant materials should be distributed to the projects. Project Manager should maintain these materials in an organized and highly visible manner and update as required.

COMMENTS: Failure to maintain updated regulations and guidance could result in inappropriate handling of hazardous materials, possibly resulting in environmental or personal harm.

FINDING: Management Practice

CONDITION: Project lacks a contingency plan for responding to discovery of potential HTW contaminated sites.

CRITERIA: A contingency plan outlining steps to follow upon discovery of potential HTW contaminated sites should be in place.

EFFECT: If proper steps are not taken to investigate potential HTW sites, project personnel or the public could be unnecessarily exposed to hazardous/toxic wastes.

SOLUTION: A contingency plan for investigating potential HTW contaminated sites should be developed. Project manager should have training necessary to implement the plan (i.e. the EPA 40 hour Hazardous Materials Incident Response course taught in accordance with 29 CFR 1910.120).

NATURAL RESOURCES MANAGEMENT

FINDING: Minor Deficiency

CONDITION 1: Master Plan for Barre Falls Dam is outdated and does not reflect current development of natural or man-made resources at this project.

CRITERIA: ER 1130-2-435 section (10)(a) requires scheduling of revision of master plans within 5 years of date of the regulation, 30 December 1987.

SOLUTION: Program resources to update Master Plan within next 5 years.

CONDITION 2: The Fish and Wildlife Management Plan (Appendix D to the Master Plan) is outdated and does not emphasize the maintenance and restoration of habitat favorable to the production of indigenous fish and wildlife (5 year management plan is dated March 1982 and expired March 1987).

CRITERIA: Fish and wildlife plans must address the management of all indigenous species and be based upon the following:

- inventory of fish and game species
- inventory of endangered, threatened and other special interest plant or animal species
- survey of non-game wildlife other than endangered species
- Verify that fishing, hunting and trapping are authorized and controlled in conformance with Federal and state laws, local regulations and approved management plans (ER 1105-2-50, para. 2-1).

SOLUTION: 1. Update the current Fish and Wildlife Management plan to include and emphasize items mentioned above.
2. Assure that State F&W management plans are kept current and included into the Project plan.

CONDITION 3: The Forest Management Plan (Appendix B to the Master Plan) is outdated and does not adequately address the provisions for sustained production of timber and/or be compatible with multiple use resource management objectives. Five year management plan dated March 1982 expired March 1987.

CRITERIA: The Forest Management Plan must be current and include the following: (ER 1130-20400 para. 11(1)).

- volume inventories and conducted and kept current
- small volume (including firewood) sales are in accordance with regulations
- harvesting and treatment
- sustain yield
- improve vegetation conditions
- control pests
- improve watersheds
- improve wildlife habitat
- complement natural beauty values

SOLUTION: The Forest Plan needs to be revised and updated to include provisions to address the resource management objectives listed above.

FINDING: Minor Deficiency

CONDITION: Approved Project OMP (Operations Management Plan) has not been developed in coordination with the planning, real estate and safety elements of the project.

CRITERIA: All Corps facilities are required to develop and maintain a project operational management plan (OMP). (ER 1130-2-400 para.6 and para.9 through 11 Appendix B.)

SOLUTION:

1. Develop an OMP in accordance with ER 1130-2-400 and assure that it addresses all operational projects in the Master Plan (ER 1130-2-435).
2. Verify that the OMP has been approved by the Division Commander.
3. Verify that the OMP is updated as required.

FINDING: Management Practice

CONDITION: Wetlands at the project have not been identified, inventoried and protected.

CRITERIA: Wetlands should be identified and protected. All activities in the wetlands are to be conducted in accordance with state and federal regulations.

SOLUTION: A wetlands survey should be conducted to identify and delineate wetlands at Barre Falls Dam.

FINDING: Management Practice

CONDITION: The existing Environmental Impact Assessment/FONSI for operation and maintenance activities at Barre Falls Dam was written in 1977 and does not accurately address current conditions at the project.

CRITERIA: An up to date Environmental Assessment describing existing conditions and project impacts on natural and cultural resources should be available.

SOLUTION: Update Environmental Assessment/FONSI.

FINDING: Minor Deficiency

CONDITION: A field survey to determine if any federal or state listed threatened or endangered species occur in the project area lacking. Without such a survey, the possibility that normal project operations may harm listed species cannot be ruled out.

CRITERIA: The Federal Endangered Species Act (16 USC 1536) prohibits actions which jeopardize the continued existence of threatened or endangered species, or destroy or adversely affect critical habitat of such species. Similar protection is provided by the Massachusetts Endangered Species Act (M.G.L.c. 131a, 321 CMR 10).

SOLUTION: Program funds to conduct a survey of project area to determine if any rare, threatened and endangered species are present at the project. If any are found, management plans to protect existing populations should be developed and implemented.

FINDING: Management Practice

CONDITION: There are no minimum release rates established at Barre Falls Dam during normal and/or low flow periods. The project storage requirements were designed such that all outflow be maintained equal to inflow during non-flood periods. The project was not designed to augment low flows. During flood periods, however, minimum releases are maintained between 10-15 cfs in an effort to support downstream aquatic life in the immediate proximity of the project without contributing significantly to the downstream flood condition. At projects like Barre Falls Dam, having only one discharge conduit, flows are reduced to enable a safe inspection of the conduit. Generally, some flow is passed downstream due to gate leakage and time of closure is less than one hour, thereby reducing downstream impacts.

CRITERIA: Periodic Inspections and routine maintenance require, at times, that discharge be reduced to allow safe access to the outlet conduit for short durations (less than one hour). These unavoidable flow conditions should be gradually made to minimize stranding of downstream aquatic life.

SOLUTION: 1. Planned (non-emergency) closure schedules for maintenance and inspection should be coordinated with U.S. Fish and Wildlife Service and the appropriate State Fish and Game agency to ensure that critical seasons which might impact aquatic life are avoided.
2. Periodic Inspection Project Manager should formally contact the agencies listed above 30 days in advance of scheduled maintenance and inspection to assure full review and comment.

FINDING: Minor Deficiency

CONDITION: No survey of shoreline or land erosion at Barre Falls Dam is available.

CRITERIA: Measures shall be provided to control erosion damage to land (ER 1130-2-400 and EM 1110-1-400).

SOLUTION: Survey Barre Falls Dam for erosion, and implement a shoreline erosion control plan.

COMMENT: Several large areas of erosion are located in the area of the dikes. While some work to control this erosion has begun, the area need to be totally stabilized and restored to natural vegetation.

PESTICIDE MANAGEMENT

FINDING: Project is participating in the Division Pest Management Program. (ER 1130-2-413, para. 6.a.(2))

PETROLEUM OIL AND LUBRICANT (POL) MANAGEMENT

FINDING: Management Practice

CONDITION: Facility has informal plan for recycling waste petroleum products, i.e., waste oil is brought to waste oil recovery facility.

EFFECT: 1. Formal management plan is needed to assure that all field staff are aware of good management practice.
2. Updated POL regulations are needed to assure that management of POL is consistent with good health, safety, and environmental practice.

CRITERIA: Management of Recoverable and Waste Liquid Petroleum plan has been prepared and adopted by Division Engineer.

SOLUTION: Although staff is treating recoverable waste products in accordance with good management practices, no formal plan is available. Formal plan is being prepared by Division office and will be distributed to all field offices.

FINDING: Management Practice

CONDITION: The facility does not have ready access to a current file of applicable federal, Corps, and state/local POL regulations.

CRITERIA: The following regulations should be maintained: 29 CFR 1910, 33 CFR 153, 40 CFR 110, 112, 40 CFR 266, EM 385-1-1, EP 415-1-261, ER 500-1-1, appropriate state/local regulations.

SOLUTION: Copies of all relevant materials will be distributed to the projects. Project Manager should maintain these materials and update as necessary.

COMMENTS: Knowledge of regulations needed to assure proper handling of POL materials.

SOLID WASTE MANAGEMENT

FINDING: Minor Deficiency

CONDITION: A small pile of asphalt rubble is present on the property (Figure 2). [Note: Project Manager indicated that he has plans to dispose of material.]

CRITERIA: Open dumping of wastes is prohibited by Massachusetts state law (310 CMR 19.014).

EFFECT: Violation of state laws.

SOLUTION: Properly dispose of material.

COMMENT: On 16 February 1993, it was reported that the asphalt rubble has been disposed of properly.

FINDING: Management Practice

CONDITION: Project is not recycling glass, aluminum, or plastic. [Note: Town of Barre does not yet have mandatory recycling ordinance]

CRITERIA: Solid wastes should be recycled to the maximum practical extent. Solid Waste Disposal Act of 1966 and Federal Facilities Compliance Act of 1992 requires full Federal compliance with state and local solid waste disposal laws.

EFFECT: Waste of resources and landfill space.

SOLUTION: Develop and institute recycling program.

SPECIAL POLLUTANT - PCB'S

FINDING: The facility has not had a PCB spill, and does not have PCB transformers.

SPECIAL POLLUTANTS MANAGEMENT - RADON

FINDING: A complete radon survey was conducted at Barre Falls Dam to assess indoor levels of radon in FY 91. All areas sampled were tested at 4.0 picoCuries/liter of less. Results of testing are as follows:

LOCATION	pCi/l
Utility Building	3.30
Gatehouse - Furnace Room	1.30
Gatehouse - Operating Level	1.00

COMMENT: Radon survey program was conducted under the Army Radon Reduction Program (ARRP) administered by USAEHSC.

SPECIAL POLLUTANTS MANAGEMENT, NOISE

FINDING: Management Practice

CONDITION: A log is not maintained to log complaints on noises produced by Corps of Engineer activities and operations.

CRITERIA: 1) A single point of contact be identified to address noise complaint.
2) This POC shall keep a written log of complaints on noises produced by CE activities and operations.

SOLUTION: 1) Establish a Noise Complaint Log
2) Identify POC

FINDING: Minor Deficiency

CONDITION: A noise survey has not been conducted to identify potential noise hazards and to determine adequate personnel protection.

CRITERIA: Personnel shall not be exposed to 85 dB(a) or 140 dB impulse where engineering or administrative controls are not instituted. (EM 385-1-40, Occupational Health, EM 385-1-1, Safety Manual)

SOLUTION: Project Manager should contact the Safety and Occupational Health Office to arrange to conduct noise survey - Institute controls where needed.

EFFECT: 1) Gate House Generator should be evaluated.
2) Heavy Equipment should be evaluated.

SPECIAL POLLUTANTS MANAGEMENT - ASBESTOS

FINDING: Major Deficiency

CONDITION: An asbestos survey of Corps facilities has not been conducted.

CRITERIA: All Corps facilities are required to conduct an asbestos survey of all their facilities. (ER 200-2-2)

SOLUTION: Conduct an asbestos survey at all Barre Falls Dam facilities. In areas where asbestos containing material (ACM) is suspected, limited personal activity should take place until survey is completed and results are known.

COMMENT 1: Safety and Occupational Health office is scheduling asbestos surveys of all projects.

COMMENT 2: It was reported that all asbestos in the utility building and in the control tower has been removed. An asbestos survey should still be conducted to confirm that all asbestos has been removed.

UNDERGROUND STORAGE TANKS (UST's) MANAGEMENT

FINDING: There are no under ground storage tanks at Barre Falls Dam. New above ground tanks installed in FY 91 meet state and local regulations

WASTEWATER MANAGEMENT

WASTEWATER MANAGEMENT PROGRAM:

During the 4 September 1992 inspection, the ERGO team located onsite wastewater disposal systems at the project office and former operator's quarters which are now used as an auxiliary office by the Environmental Lab. A physical inspection of septic tanks was not conducted. During the recreation season porta-johns are installed and maintained at the picnic area.

At the project office, a 2,000 gallon septic tank, located east of the building, feeds a large leaching field consisting of thirty-two 4 by 4 galleries. This system handles the project office and Environmental Laboratory and was installed in 1985-86 after the previous system failed. The tank is pumped every two years. Problems have not been encountered with this new system.

The septic tank and leach pit serving the operator's quarters were underdesigned and could not handle flows from permanent residents. However, since the operator moved out and the building is used only as an auxiliary office, the system has been able to handle the resulting very low flows. The tank is pumped every two years.

POINT SOURCE DISCHARGE:

There are no point source discharges to public or private wastewater treatment facilities at Barre Falls Dam.

WATER QUALITY MANAGEMENT

POTABLE WATER PROGRAM:

There are two wells at the project - one supplying the project office and Environmental Laboratory, and the other supplying the former operator's quarters. There is no water supply at the picnic area.

The well for the project office and lab was installed in August 1956 to a depth of 200 feet. The well is 6 inches in diameter and has a new (1978) submersible pump with an intake depth of 195 feet. The pump has a 2 horsepower motor, and the well is rated at 20 gallons per minute. Because it supplies more than 25 people for more than 60 days a year, it is considered a public water supply. Furthermore, by supplying the same people, it becomes a nontransient noncommunity water supply, requiring registration with the state.

The 6-inch diameter well at the operators quarters was drilled in 1957 to a depth of 380 feet. A new one-half horsepower pump was installed in November 1980; the rating of the well in gallons per minute was not known. This well serves fewer than 25 people and is a private water supply. Consequently, registration with the State is not required.

Federal and State regulations only require monitoring of public water supplies; however, NED regularly monitors water quality at all well sites. Both Barre Falls wells are sampled and tested four times a year for total coliform bacteria by the NED Environmental Laboratory, which is certified by the Commonwealth of Massachusetts to perform bacterial analyses on drinking water. Monitoring for nitrates is conducted once per 3-year period. Problems have not been encountered with these wells. The water servicing the utility building has a sulphur smell. A filtering system was installed in 1988 to correct the problem.

WELL REGISTRATION:

FINDING: Minor Deficiency

CONDITION: In compliance with Federal Regulation 40 CFR 142.10, the project office well, a nontransient noncommunity water supplier, should be registered with the Commonwealth of Massachusetts.

CRITERIA: Under 40 CFR 142.10 (adopted under provisions of the Safe Drinking Water Act - Public Law 93523), a State has primary enforcement responsibility for public water systems, including registration of wells.

SOLUTION: Wells should be registered. This may involve testing for metals and organic compounds at significant additional expense.

FINDING: Minor deficiency.

CONDITION: Monitoring results of public water sources are to be regularly reported to the State. However, proper reporting of well results requires an EPA number for the well which can be obtained only by properly registering the well.

CRITERIA: Prompt reporting of potable water monitoring results is required under provisions of the Safe Drinking Water Act - Public Law 93-523.

SOLUTION: Results of testing the project office well should be reported to the State once it is properly registered. Project Manager is responsible for assuring that public water sources are monitored and reported.

COMMENT: POC is Mr. Drew Pala, Massachusetts Department of Environmental Management (508)792-7650.

RESERVOIR WATER QUALITY PROGRAM

The NED reservoir water quality management program at Barre Falls Dam has multiple goals. Its primary purpose is to protect public health and safety, but additional goals include meeting State water quality standards, maintaining water quality suitable for all project purposes, and understanding the effects of project operations on water quality. NED's Water Quality Team meets as needed during the year to determine needs at each project and carry out the annual program.

Although water quality management is not a defined purpose at any project operated and maintained by NED, the Corps has a strong interest in water quality. Executive Order 11752, Prevention, Control, and Abatement of Environmental Pollution at Federal Facilities, 19 December 1973, makes it a stated national policy that the Federal Government, in the design, construction, management, operation, and maintenance of its facilities, shall provide leadership in the nationwide effort to protect and enhance the quality of air, water, and land resources. Section 102b of the Federal Water Pollution Control Act Amendments of 1972 places responsibility with EPA for determining the need for, the value of, and the impact of storage for water quality control in any reservoir project not in a construction status as of 18 October 1972. The responsibility for water quality at our projects, however, clearly rests with the Corps since it is an integral part of water control management activities (reference ER 1130-2-334, dated April 1986, and ER 1130-2415, dated October 1976).

BEACH WATER QUALITY MONITORING PROGRAM

There are no designated swimming areas at Barre Falls Dam, and no other sites used with any regularity. Swimming is prohibited at Barre Falls Dam in accordance with State laws.

PART II

ERGO FINDINGS

NEW ENGLAND DIVISION
ENVIRONMENTAL LABORATORY

AIR EMISSIONS MANAGEMENT

FINDING: Minor Deficiency

CONDITION: Corps owned vehicles have not been inspected annually for air pollutant emissions.

CRITERIA: State of Massachusetts regulations (310 CMR 7.20) require yearly testing of motor vehicles for hydrocarbon and carbon monoxide emissions. Section 118 of the federal Clean Air Act requires full federal compliance with state and local air quality regulations.

EFFECT: Unlawful levels of air pollutants may be released from project vehicles.

SOLUTION: Corps vehicles should be inspected yearly for emissions and necessary measures taken to correct any deficiencies.

COMMENT: NED Motor Transportation Officer should be contacted to arrange for annual emission inspections of fleet vehicles.

FINDING: Management Practice

CONDITION: It is unknown if air conditioners in Corps owned vehicles are serviced at facilities which properly recycle refrigerant containing chlorofluorocarbons.

CRITERIA: The 1990 Clean Air Act requires all persons servicing motor vehicle air conditioners to properly use approved CFC recycling equipment by 1 January 1993.

EFFECT: CFC's could be released from Corps owned vehicles during servicing. CFC's contribute to atmospheric ozone depletion and such releases should be avoided.

SOLUTION: Chief of Lab should assure that air conditioners in Corps vehicles are serviced at only facilities which properly recycle CFC's.

FINDING: Environmental Laboratory is not required to have a permit for volatile emissions of solvents. Massachusetts air quality regulations require facilities to obtain a permit if more than one ton of volatiles are emitted per year (310 CMR 7.02).
FY 92 Solvent Use:

<u>Solvent</u>	<u>Used</u>	<u>Captured & Disposed</u>	<u>Unaccounted for & Presumed Evaporated</u>
Acetone/Hexane	960#	330#	630#
Methylene Chloride	748#	605#	143#
Freon	832#	<u>715#</u>	<u>117#</u>
		Total	890#

COMMENT: Environmental Lab should continue to estimate weight of volatiles emitted each year and obtain permit if emissions exceed one ton per year.

CULTURAL AND HISTORIC RESOURCES MANAGEMENT

FINDING: Environmental Lab has no land management responsibilities.

HAZARDOUS MATERIAL MANAGEMENT

FINDING: Management Practice

CONDITION: Not all relevant regulations, directives, and guidance documents on hazardous materials are maintained at the facility. ER-200-2-2 and GMP.

CRITERIA: The following documents should be maintained and updated: 29 CFR 1910, 40 CFR 302, 49 CFR 172, 173, 178, 179, NEPA, ER 500-1-1, EM 385-1-1, applicable state/local regulations.

SOLUTION: Copies of all relevant materials will be distributed to the projects. PM/lab chief to maintain these materials in an organized and accessible manner and update as necessary.

COMMENTS: Knowledge of regulations required to assure safe and environmentally compatible handling of hazardous materials.

FINDING: Major Deficiency

CONDITION: Facility does not have a written Oil and Hazardous Substance Contingency Plan for spill events. ER-1130-2-434.

CRITERIA: Contingency Plan to include the following: designated storage areas; designated individual for spill response; periodic drills; spill management equipment; emergency medical procedures; hazard control materials; emergency phone numbers; decontamination procedures.

SOLUTION: Plans are being developed for all projects. They will be included in the Federal Response Plan and The Flood Emergency Plan.

COMMENTS: Plan needed to insure that proper and timely action is taken during spill events to minimize environmental harm and insure public health and safety.

FINDING: Major Deficiency

CONDITION: 1. Lab does not have an inside flammable/combustible storage room. Garage bay, old operators quarters and other areas used to store quantities of hazardous materials do not meet certain specifications.
2. Storage areas do not meet parameters for ventilation and containment specified in 29 CFR 1910.106(d)(4).

CRITERIA: 1) Fire resistant walls, sill or ramp separating adjacent rooms
2) Liquid tight floor/wall joints
3) Self closing fire doors
4) NEPA approved electrical wiring
5) Suitable capacity exhaust system
6) Clear isles. (29 CFR 1910.106 (d)(4))
7) A raised sill or ramp must be provided to adjacent rooms or buildings. Ventilation must provide for six changes of air per hour.

SOLUTION: 1. Chief of Lab should construct new flammable/combustible storage room or modify existing garage to meet federal standards.
2. Quantities of materials should be evaluated and only those materials being used or anticipated to be used within a reasonable period of time should be kept on-site.

HAZARDOUS WASTE MANAGEMENT

FINDING: Minor Deficiency

CONDITION: Lab does not have designated emergency coordinator and emergency response planning. 40 CFR 262.34 (d)(5)

CRITERIA: Requirements include: emergency coordinator, facility spill control plan, emergency information posted next to phone.

SOLUTION: Lab personnel should designate emergency coordinator and develop appropriate response planning as required by 40 CFR.

COMMENTS: These requirements apply to "small quantity" generators. Other flood control facilities fall under "very small" status and as such are exempted from this regulation.

FINDING: Management Practice

CONDITION: Not all relevant regulation, directives, and guidance documents on hazardous materials are maintained at the facility.

CRITERIA: The following documents should be maintained and updated: CFR 260-271, 40 CFR 372, 49 CFR 172-179, NEPA, state hazardous waste regulations, policy letters, ER 1130-2-434.

SOLUTION: Copies of all relevant materials should be distributed to the projects. Chief of Lab should maintain these materials in an organized and highly visible manner and update as required.

COMMENTS: Failure to maintain updated regulations and guidance could result in inappropriate handling of hazardous materials, possibly resulting in environmental or personal harm.

NATURAL RESOURCES MANAGEMENT

FINDING: Environmental Lab has no natural resources management responsibilities.

PESTICIDE MANAGEMENT

FINDING: Environmental Lab does not store or apply pesticides. Pesticides may be routinely stored at the Lab for testing or analysis but this material would be more correctly managed as hazardous waste and subject to appropriate regulations

PETROLEUM OIL AND LUBRICANT (POL) MANAGEMENT

FINDING: POL management regulations apply only to Corps facilities which store, transport, dispose, or utilize petroleum-based fuels, oils or lubricants. Waste POL materials typically stored or analyzed at the Lab are addressed in the Hazardous Waste Management Section.

COMMENT: The primary focus of review of this section is the organizational mechanisms which control or prevent environmental releases at the source.

SOLID WASTE MANAGEMENT

FINDING: Minor Deficiency

CONDITION: A few discarded items are stored behind one of the lab buildings (Figure 1). These include transite and metal from an old fume hood.

CRITERIA: Excess material should be stored in an orderly manner. Items not likely to be of future use should be properly disposed. Massachusetts regulations (310 CMR 16) prohibit speculative accumulation of materials unless a reasonable future use for the material can be postulated.

SOLUTION: Access need for other items stored at the site. Items not likely to be of use in the future should be properly disposed of at a state licensed landfill. Scrap metal should be recycled.

FINDING: Laboratory is recycling all glass, aluminum, and glass soft drink containers. Lab is also recycling waste paper at the Waltham Federal Center, NED.

COMMENT Town of Barre does not yet have mandatory recycling ordinance;

SPECIAL POLLUTANT.- PCB'S

FINDING:

The facility has not had a PCB spill, and does not have PCB transformers; however, water, soil, and other media are analyzed for PCBs at the Environmental Laboratory. Consequently, PCB-contaminated media are stored at the site (also small amounts of PCB reference material) and disposed of after. Soil samples containing greater than 50 ppm PCBs are disposed of as hazardous waste.

SPECIAL POLLUTANTS MANAGEMENT - RADON

FINDING: A complete radon survey was conducted at the Environmental Laboratory to assess indoor levels of radon in Fy 91. All areas sampled were tested at 4.0 picoCuries/liter or less. Results of testing are as follows:

LOCATION	pCi/l
Environmental Lab	3.90
Lab Offices	3.90
Quarters	1.10
	1.20
	.70

COMMENT: Radon survey program was conducted under the Army Radon Reduction Program (ARRP) administered by USAEHSC.

SPECIAL POLLUTANTS MANAGEMENT, NOISE

FINDING: Management Practice

CONDITION: A log is not maintained to log complaints on noises produced by Corps of Engineers activities and operations.

CRITERIA: 1) A single point of contact be identified to address noise complaint.
2) This POC shall keep a written log of complaints on noises produced by Corps of Engineer activities and operations.

SOLUTION: (1) Establish a Noise Complaint Log
(2) Identify POC

FINDING: Minor Deficiency

CONDITION: A noise survey has not been conducted to identify potential noise hazards and to determine adequate personnel protection.

CRITERIA: Personnel shall not be exposed to 85 dB(a) or 140 dB impulse where engineering or administrative controls are not instituted. (EM 385-1-40, Occupational Health, EM 385-1-1, Safety Manual)

SOLUTION: Environmental Lab should contact the Safety and Occupational Health Office to arrange for a noise survey to be conducted.

SPECIAL POLLUTANTS MANAGEMENT - ASBESTOS

FINDING: Major Deficiency

CONDITION: An asbestos survey of Corps facilities has not been conducted.

CRITERIA: All Corps facilities are required to conduct an asbestos survey of all their facilities. (ER 200-2-2)

SOLUTION: Conduct an asbestos survey at all Environmental Laboratory facilities. In areas where asbestos containing material (ACM) is suspected, limited personal activity should take place until survey is completed and results are known.

COMMENT: Safety and Occupational Health office is scheduling asbestos surveys of all projects. Anticipated completion will be determined by time and money.

UNDERGROUND STORAGE TANKS (UST's) MANAGEMENT

FINDING: Environmental Lab does not operate or maintain underground storage tanks and is exempt from subject regulations.

WASTEWATER MANAGEMENT

WASTEWATER MANAGEMENT PROGRAM:

Refer to Part I, page 27.

POINT SOURCE DISCHARGE:

Refer to Part I, page 27.

WATER QUALITY MANAGEMENT

POTABLE WATER PROGRAM:

Refer to Part I, page 28

NEW ENGLAND DIVISION
ERGO TEAM

Bruce Williams Program Manager
Operations Directorate
Project Operations and Readiness Division
Environmental Compliance Coordinator - NED
Member, NED's Water Quality Team

Jim Law
Operations Directorate
Project Operations and Readiness Division

Mike Penko
Planning Directorate
Impact Analysis Division
Endangered Species Coordinator - NED

Townsend Barker
Engineering Directorate
Water Control Division
Chairman, NED's Water Quality Team

Vicki Volz
Engineering Directorate
Water Control Division

Jim Peck
Safety and Occupational Health Office
Safety Manager - NED

Anne Laster
Real Estate Directorate
Conveyancing Division

The following individuals participated in the pre-assessment evaluation, field inspection and/or in the research and evaluation of environmental compliance guidance:

BARRE FALLS DAM

Chuck Sabine - Project Manager
Ralph Gendron - Park Ranger

ENVIRONMENTAL LABORATORY

Brian Condike
Chief, Environmental Laboratory

Appendix A

ERGO

Environmental Review Guide for Operations

PRE-ASSESSMENT ENVIRONMENTAL MANAGEMENT QUESTIONNAIRE

This questionnaire will provide background information necessary to plan and conduct an environmental compliance assessment.

Name of Facility: BARRE FALLS DAM

QUESTION/DESCRIPTION

RESPONSE

REFERENCE

SECTION 1, Air Emissions Management:

1. Does facility operate a fuel burner (central steam plant, or hot water or hot water steam boiler)?

NO

If YES see
ERGO items 1-4
through 1-15.

2. Does facility operate an incinerator?

NO

If YES see
ERGO items 1-16
through 1-18.

3. Does facility dispense, store, or transfer gasoline?

NO

If YES see
ERGO items 1-19
through 1-23.

4. Does facility have volatile organic compounds (VOCs)(generally, but not exclusively, found in solvents)?

NO

If YES see
ERGO items 1-24
through 1-28.

5. Does facility have fugitive emissions from volatile hazardous air pollutant (VHAP) equipment?

NO

If YES see
ERGO items 1-29
through 1-35.

6. Does facility use VOC-based solvent degreasers?

NO

If YES see
ERGO item 1-36.

QUESTION/DESCRIPTION

RESPONSE REFERENCE

SECTION 2, Cultural and Historic Resources Management:

1. Does the facility have any properties under its jurisdiction?

YES

If YES see
ERGO items 2-4
through 2-10.

2. Does the facility have cultural resources? List the facility's cultural resources below:

YES

If YES see
ERGO items 2-
11 through 2-14.

Bridges, Roads, Foundations
WALLS, RAILROADS, TAIL RACE
REFER TO Archaeology Report

a. Are the facility's master plan or operational management plan (OMP) public documents?

YES

If YES see
ERGO item 2-
13.

3. Does the facility have an operational project?

YES

If YES see
ERGO item 2-
15.

4. Does the facility have any Native American graves or artifacts, or have any been discovered during an operation?

NO

If YES see
ERGO item 2-
16.

5. Does the facility have an archeological or historical collection?

NO

If YES see
ERGO items 2-
17 through 2-28.

Refer To Archaeology Report

QUESTION/DESCRIPTION

RESPONSE REFERENCE

SECTION 3, Hazardous Materials Management:

1. Does the facility store any hazardous materials?

YES

If YES see
ERGO items 3-5
through 3-8.

2. Have there been any releases of hazardous substances at the facility? *REFER TO ATTACHED INCIDENT REPORT*

YES

If YES see
ERGO items 3-9
through 3-11.

3. Are there any extremely hazardous substances at the facility?

YES

If YES see
ERGO item 3-12
and 3-13.

4. Does the facility: Have extremely hazardous substances in excess of 500 lbs or the threshold planning quantity (see appendix III-1); have hazardous chemicals in excess of 10,000 lbs; or fall under Standard Industrial Classification Codes 20 to 39?

N/O

If YES see
ERGO item 3-12
and 3-13.

5. Does the facility store compressed gases, flammable/combustibles, or acids?

YES

If YES see
ERGO items 3-
14 through 3-27.

6. Does the facility transport hazardous material, or offer such materials for transport?

N/O

If YES see
ERGO items 3-
28 through 3-31.

QUESTION/DESCRIPTION

RESPONSE REFERENCE

SECTION 4, Hazardous Waste Management:

1. Is facility a generator of hazardous waste?

Yes

If YES see
ERGO items 4-8
through 4-15.

a. Is facility a small quantity generator?

No

If YES see
ERGO items 4-
16 through 4-18.

b. Is facility a very small quantity generator?

Yes

If YES see
ERGO item 4-
19.

Complete this section before proceeding.

Any waste which is not excepted, which is listed in 40 CFR 261, or which exhibits the following characteristics is a hazardous waste:

- Ignitability (flash point <140 F)
- or Corrosivity (pH <2 or >12.5)
- or TCLP Toxicity (for As, Ba, Cd, Cr, Pb, Hg, Se, Ag, and selected pesticides.
- or Reactive. (or CN)

The following are hazardous wastes that may typically be found at a Corps facility:

CHECK IF USED AT THIS FACILITY		Vol Gen/mo		Vol Accum	
		lb.	Kg.	lb.	Kg.
<i>Refer To Attached Protect Hazardous</i>					
—	• Solvents <i>MATERIAL INVENTORY</i>	—	—	—	—
—	Liquid Paint	—	—	—	—
—	Paint stripper, remover, or thinner	—	—	—	—
—	Spray paint booth air filters	—	—	—	—
—	Pesticides, Insecticides, Herbicides, etc.	—	—	—	—
—	NBC filters and test kits	—	—	—	—
—	DS2 (diethylene triamine)	—	—	—	—
—	STB (super topical bleach)	—	—	—	—

___	Ordnance, ammunition, explosives & residues	___	___	___	___
___	Battery acid & Caustics (in unserviceable batteries)	___	___	___	___
___	Some pharmaceuticals	___	___	___	___
___	POL Tank Farm fuel system filters	___	___	___	___
___	De-icing solution	___	___	___	___
___	Printing ink, ink solvents and cleaners	___	___	___	___
___	Absorbant materials and soil contaminated with hazardous waste	___	___	___	___
___	Other_____	___	___	___	___
___	Other_____	___	___	___	___
___	Other_____	___	___	___	___
	TOTAL	___	___	___	___

* e.g., Trichlorethane, Methylene, chloride, Tetrachloroethylene, 1,1,1 Trichloroethane, Carbon Tetrachloride, Chlorinated Fluorocarbons, Toluene, MEK, Break-free in liquid form, Mineral Spirits, Xylene

USEPA Generator Designation: ___ Unregulated ___ Small Qty ___ Large Qty

QUESTION/DESCRIPTION

RESPONSE REFERENCE

2. Does facility export/import hazardous waste from/to the United States?

NO

If YES see ERGO items 4-23 through 4-31.

3. Does facility transport hazardous waste?

NO

If YES see ERGO items 4-32 through 4-37.

4. Does facility have a treatment, storage, or disposal facility (TSDF)?

NO

If YES see ERGO items 4-38 through 4-74.

QUESTION/DESCRIPTION	RESPONSE	REFERENCE
a. Does the TSD facility receive waste from a foreign source?	<u>NO</u>	If YES see ERGO item 4-42.
b. Does facility receive waste from off-site sources?	<u>NO</u>	If YES see ERGO items 4-46 and 4-47.
c. Does facility handle ignitable, reactive, or incompatible wastes?	<u>NO</u>	If YES see ERGO item 4-65 and 4-67.
5. Does facility have hazardous waste containers?	<u>YES</u>	If YES see ERGO items 4-75 through 4-86.
6. Does facility store hazardous wastes in tanks?	<u>NO</u>	If YES see ERGO items 4-87 through 4-101.
7. Does facility use surface impoundment as a means of treatment, storage, or disposal of hazardous wastes?	<u>NO</u>	If YES see ERGO items 4-102 through 4-110.
8. Does facility have waste piles?	<u>NO</u>	If YES see ERGO items 4-111 through 4-118.
9. Does facility have land treatment of hazardous waste?	<u>NO</u>	If YES see ERGO items 4-119 through 4-126.
10. Does facility have hazardous waste in landfills?	<u>NO</u>	If YES see ERGO items 4-127 through 4-137.

QUESTION/DESCRIPTION

RESPONSE REFERENCE

11. Does facility incinerate hazardous waste?

No

If YES see
ERGO items 4-
138 through 4-
147.

12. Does facility dispose of hazardous waste in miscellaneous units?

No

If YES see
ERGO items 4-
148 and 4-149.

13. Does facility have thermal treatment facilities?

No

If YES see
ERGO items 4-
150 through 4-
152.

14. Does facility have chemical, physical, or biological treatment facilities?

No

If YES see
ERGO items 4-
153 through 4-
155.

15. Does facility have restricted wastes?

No

If YES see
ERGO items 4-
156 through 4-
168.

SECTION 5, Natural Resources Management:

1. Does facility have any construction projects?

No

If YES see
ERGO item 5-4.

2. Does facility have land management responsibilities?

Yes

If YES see
ERGO items 5-7
and 5-8.

3. Does facility have floodplains or wetlands?

Yes

If YES see
ERGO item 5-9.

4. Does facility contain a shoreline?

No

If YES see
ERGO item 5-
12.

QUESTION/DESCRIPTION

RESPONSE

REFERENCE

5. Does facility have endangered or threatened species?

?

If YES see
ERGO items 5-
13 and 5-14.

SECTION 6, Pesticides Management:

1. Do facility personnel engage in the application of pesticides?

YES

If YES see
ERGO items 6-7
through 6-16.

2. Does facility store, mix, or formulate pesticides?

YES

If YES see
ERGO items 6-
17 through 6-28.

a. Does facility store/use pesticides classified highly toxic or moderately toxic (bearing DANGER, POISON, WARNING, or the skull and crossbones symbol)?

YES

If YES see
ERGO items 6-
20 through 6-27.

3. Does facility dispose of pesticides?

NO

If YES see
ERGO items 6-
29 through 6-33.

QUESTION/DESCRIPTION

RESPONSE

REFERENCE

SECTION 7, Petroleum, Oil and Lubricant (POL) Management:

1. Does the facility store, transport, or dispense petroleum products?

YES

If YES see
ERGO items 7-5
through 7-12.

2. Have there been any discharges of oil at the facility?

NO

If YES see
ERGO items 7-
13 through 7-14.

3. Does the facility have any bulk storage tanks over 660 gallons?

NO

If YES, see
ERGO item 7-
16.

4. Does the facility use dikes as a means of containment for petroleum storage tanks?

NO

If YES see
ERGO items 7-
17 and 7-18.

5. Does the facility have any pipelines?

YES

If YES see
ERGO items 7-
20 through 7-22.

6. Does the facility sell used oil?

NO

If YES, see
ERGO item 7-
23.

SECTION 8, Solid Waste Management:

1. Does the facility collect or store solid waste on site?

NO

If YES, see
ERGO items 8-4
through 8-12.

2. All Corps facilities must should recycle and reduce solid waste.

NO

See ERGO item
8-13.

QUESTION/DESCRIPTION	RESPONSE	REFERENCE
a. Does facility have over 100 office workers?	<u>NO</u>	If YES see ERGO item 8-14.
b. Do more than 500 families reside at the facility?	<u>NO</u>	If YES see ERGO item 8-15.
c. Does the facility generate waste corrugated containers?	<u>NO</u>	If YES see ERGO item 8-16.
3. Does facility have land disposal on site?	<u>NO</u>	If YES see ERGO items 8-17 through 8-31.
a. Does facility dispose of water treatment plant sludges?	<u>NO</u>	If YES see ERGO 8-18.
b. Does facility dispose of incinerator or air pollution control residues?	<u>NO</u>	If YES see ERGO item 8-19.
c. Does the facility accept special wastes?	<u>NO</u>	If YES see ERGO item 8-21.
4. Does the facility have a closure site?	<u>NO</u>	If YES, see ERGO items 8-32 and 8-33.
5. Does the facility have a new landfill site?	<u>NO</u>	If YES, see ERGO items 8-34 and 8-35.
6. Does facility have a thermal processing facility?	<u>NO</u>	If YES see ERGO items 8-36 through 8-49.

QUESTION/DESCRIPTION

RESPONSE

REFERENCE

7. Does the facility utilize resource recovery facilities?

NO

If YES see
ERGO items 8-
50 and 8-51.

a. If the facility does NOT utilize resource recovery facilities, a report must be filed with the Administrator explaining the decision not to utilize.

N/A

See ERGO item
8-50.

SECTION 9, Special Pollutants Management:

1. Does facility have PCBs of any kind?

NO

If YES, see
ERGO items 9-4
through 9-11.

a. Does facility have a PCB waste landfill?

NO

If YES, see
ERGO item 9-
10.

b. Does facility have PCB storage or disposal facilities?

NO

If YES, see
ERGO item 9-
11.

2. Does facility have PCB transformers?

NO

If YES, see
ERGO items 9-
12 through 9-18.

3. Has facility had a PCB spill?

NO

If YES see
ERGO item 9-
19.

4. Does facility have PCB Items (PCB-contaminated heat transfer or hydraulic systems, electromagnets, switches, voltage regulators, capacitors, circuit breakers, reclosers, or cables)?

NO

If YES see
ERGO items 9-
20 through 9-23.

5. Does facility use PCBs in research?

NO

If YES see
ERGO item 9-
24.

QUESTION/DESCRIPTION	RESPONSE	REFERENCE
6. Does facility store PCBs?	<u>NO</u>	If YES see ERGO items 9-25 through 9-29.
7. Does facility transport PCBs or PCB Items?	<u>NO</u>	If YES see ERGO items 9-30 and 9-31.
8. Does facility dispose of PCBs or PCB Items?	<u>NO</u>	If YES see ERGO items 9-32 through 9-41.
9. Does facility demolish, renovate, or strip components from structures containing friable asbestos?	<u>NO</u>	If YES see ERGO items 9-42 through 9-52.
10. Does facility dispose, or transport for disposal, asbestos or asbestos-containing waste?	<u>NO</u>	If YES see ERGO items 9-53 through 9-57.
11. Is facility located in an area with a potential radon problem?	<u>NO</u>	If YES see ERGO items 9-58 through 9-60.
12. Does facility have any possible sources of noise pollution, or have a noise hazardous area?	<u>NO</u>	If YES see ERGO items 9-61 through 9-68.

SECTION 10, Underground Storage Tanks (USTs) Management:

1. Does facility have organizational fuel tanks?	<u>NO</u>	If YES see ERGO item 10-5.
2. Has facility repaired, or is it planning to repair, a UST?	<u>NO</u>	If YES see ERGO item 10-10.

QUESTION/DESCRIPTION

RESPONSE

REFERENCE

3. Does facility have hazardous waste USTs?

NO

If YES see
ERGO item 10-
19.

4. Does facility have a deferred UST?

NO

If YES see
ERGO item 10-
20.

5. Does facility have a metallic UST?

NO

If YES see
ERGO items
10-23 and 10-35.

6. Does facility have newly-installed USTs (i.e., after May, 1986)?

NO

If YES see
ERGO items
10-24 through
10-27.

7. Have facility USTs undergone a change of service, or closure?

2 ~~FF~~ USTs Removed 1990
DACW33-90-M-0932

YES

If YES see
ERGO items
10-28 through
10-34.

8. Does facility have substandard USTs?

NO

If YES see
ERGO item 10-
35.

SECTION 11, Wastewater Management:

1. Does facility have a floating plant?

NO

If YES see
ERGO item 11-
4.

2. Does facility have any point source discharges, or does facility have domestic sewage treatment plants?

NO

If YES see
ERGO items
11-5 through
11-8.

QUESTION/DESCRIPTION

RESPONSE REFERENCE

3. Does facility have storm water discharge not covered by a NPDES permit?

NO

If YES see
ERGO item 11-9.

4. Does facility discharge to a privately-owned treatment works (POTW)?

NO

If YES see
ERGO items
11-10 through
11-12.

5. Does facility have any personnel engaged in the operation of water pollution control devices?

NO

If YES see
ERGO item 11-13.

6. Does facility have a wastewater treatment plant?

NO

If YES see
ERGO items
11-14 and 11-15.

7. Does facility have electroplating operations?

NO

If YES
ERGO item 11-16 through 11-27.

8. Does facility conduct or issue permits for dredging operations?

REFER TO ATTACHED MEMO dtd 27 Jun 1992
ENVIRONMENTAL EVALUATION

YES

If YES see
ERGO items
11-28 through
11-35.

SECTION 12, Water Quality Management:

1. Does facility perform contaminant monitoring on its water supply?

YES

If YES see
ERGO items
12-18 through
12-43.

2. Is facility located near a sole source aquifer?

?

If YES see
ERGO item 12-44.

QUESTION/DESCRIPTION

RESPONSE

REFERENCE

3. Does facility use surface water or ground water under the influence of surface water for drinking water?

NO

If YES see
ERGO items
12-45 through
48.

4. Does facility have recreational potable water sources?

NO

If YES see
ERGO item 12-
49.

5. Does facility have swimming beaches?

NO

If YES see
ERGO item 12-
50.

6. Does facility have swimming pools?

NO

If YES see
ERGO item 12-
51.

7. Do facility's waters support watercraft?

YES

If YES see
ERGO items
12-52.

8. Is facility authorized to provide emergency drinking water?

NO

If YES see
ERGO item 12-
53.

Signature of individual completing this form: C. J. Salinas / P. Q. Lendrum

Date completed: 14 JUL 92

ERGO

Environmental Review Guide for Operations

PRE-ASSESSMENT ENVIRONMENTAL MANAGEMENT QUESTIONNAIRE

This questionnaire will provide background information necessary to plan and conduct an environmental compliance assessment.

Name of Facility: CENED Environmental Laboratory

QUESTION/DESCRIPTION

RESPONSE

REFERENCE

SECTION 1, Air Emissions Management:

1. Does facility operate a fuel burner (central steam plant, or hot water or hot water steam boiler)?

NO

If YES see
ERGO items 1-4
through 1-15.

2. Does facility operate an incinerator?

NO

If YES see
ERGO items 1-
16 through 1-18.

3. Does facility dispense, store, or transfer gasoline?

Only from or in 5-gal containers.

NO

If YES see
ERGO items 1-
19 through 1-23.

4. Does facility have volatile organic compounds (VOCs) (generally, but not exclusively, found in solvents)?

Only small quantities of solvents
used from 1-gal containers

NO

If YES see
ERGO items 1-
24 through 1-28.

5. Does facility have fugitive emissions from volatile hazardous air pollutant (VHAP) equipment?

NO

If YES see
ERGO items 1-
29 through 1-35.

6. Does facility use VOC-based solvent degreasers?

NO

If YES see
ERGO item 1-
36.

QUESTION/DESCRIPTION

RESPONSE REFERENCE

SECTION 2, Cultural and Historic Resources Management:

1. Does the facility have any properties under its jurisdiction?

NO

If YES see
ERGO items 2-4
through 2-10.

2. Does the facility have cultural resources? List the facility's
cultural resources below:

NO

If YES see
ERGO items 2-
11 through 2-14.

a. Are the facility's master plan or operational management plan (OMP)
public documents?

N/A

If YES see
ERGO item 2-
13.

3. Does the facility have an operational project?

NO

If YES see
ERGO item 2-
15.

4. Does the facility have any Native American graves or artifacts, or
have any been discovered during an operation?

NO

If YES see
ERGO item 2-
16.

5. Does the facility have an archeological or historical collection?

NO

If YES see
ERGO items 2-
17 through 2-28.

QUESTION/DESCRIPTION

RESPONSE REFERENCE

SECTION 3, Hazardous Materials Management:

1. Does the facility store any hazardous materials?

YES

If YES see
ERGO items 3-5
through 3-8.

2. Have there been any releases of hazardous substances at the facility?

NO

If YES see
ERGO items 3-9
through 3-11.

3. Are there any extremely hazardous substances at the facility?

NO

If YES see
ERGO item 3-12
and 3-13.

4. Does the facility: Have extremely hazardous substances in excess of 500 lbs or the threshold planning quantity (see appendix III-1); have hazardous chemicals in excess of 10,000 lbs; or fall under Standard Industrial Classification Codes 20 to 39?

NO

If YES see
ERGO item 3-12
and 3-13.

5. Does the facility store compressed gases, flammable/combustibles, or acids?

YES

If YES see
ERGO items 3-
14 through 3-27.

6. Does the facility transport hazardous material, or offer such materials for transport?

NO

If YES see
ERGO items 3-
28 through 3-31.

QUESTION/DESCRIPTION

RESPONSE

REFERENCE

SECTION 4, Hazardous Waste Management:

1. Is facility a generator of hazardous waste?

Yes

If YES see
ERGO items 4-8
through 4-15.

a. Is facility a small quantity generator?

Yes

If YES see
ERGO items 4-
16 through 4-18.

b. Is facility a very small quantity generator?

No

If YES see
ERGO item 4-
19.

Complete this section before proceeding.

Any waste which is not excepted, which is listed in 40 CFR 261, or which exhibits the following characteristics is a hazardous waste:

- Ignitability (flash point <140 F)
- or Corrosivity (pH <2 or >12.5)
- or TCLP Toxicity (for As, Ba, Cd, Cr, Pb, Hg, Se, Ag, and selected pesticides.
- or Reactive. (or CN)

The following are hazardous wastes that may typically be found at a Corps facility:

CHECK IF USED AT THIS FACILITY		Vol Gen/mo		Vol Accum	
		lb.	Kg.	lb.	Kg.
<input checked="" type="checkbox"/>	Solvents	60	25	—	—
<input type="checkbox"/>	Liquid Paint	—	—	—	—
<input type="checkbox"/>	Paint stripper, remover, or thinner	—	—	—	—
<input type="checkbox"/>	Spray paint booth air filters	—	—	—	—
<input type="checkbox"/>	Pesticides, Insecticides, Herbicides, etc.	—	—	—	—
<input type="checkbox"/>	NBC filters and test kits	—	—	—	—
<input type="checkbox"/>	DS2 (diethylene triamine)	—	—	—	—
<input type="checkbox"/>	STB (super topical bleach)	—	—	—	—

—	Ordnance, ammunition, explosives & residues	—	—	—	—
—	Battery acid & Caustics (in unserviceable batteries)	—	—	—	—
—	Some pharmaceuticals	—	—	—	—
—	POL Tank Farm fuel system filters	—	—	—	—
—	De-icing solution	—	—	—	—
—	Printing ink, ink solvents and cleaners	—	—	—	—
—	Absorbant materials and soil contaminated with hazardous waste	—	—	—	—
✓	Other <u>Aqueous Lab Waste</u>	<u>225</u>	<u>100</u>	—	—
—	Other _____	—	—	—	—
—	Other _____	—	—	—	—
	TOTAL	—	—	—	—

* e.g., Trichlorethane, Methylene chloride, Tetrachloroethylene, 1,1,1 Trichloroethane, Carbon Tetrachloride, Chlorinated Fluorocarbons, Toluene, MEK, Break-free in liquid form, Mineral Spirits, Xylene

USEPA Generator Designation: — Unregulated ☒ Small Qty — Large Qty

QUESTION/DESCRIPTION	RESPONSE	REFERENCE
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2. Does facility export/import hazardous waste from/to the United States?

NO

If YES see ERGO items 4-23 through 4-31.

3. Does facility transport hazardous waste?

NO

If YES see ERGO items 4-32 through 4-37.

4. Does facility have a treatment, storage, or disposal facility (TSDF)?

NO

If YES see ERGO items 4-38 through 4-74.

QUESTION/DESCRIPTION

RESPONSE

REFERENCE

a. Does the TSD facility receive waste from a foreign source?	<u>N/A</u>	If YES see ERGO item 4-42.
b. Does facility receive waste from off-site sources?	<u>N/A</u>	If YES see ERGO items 4-46 and 4-47.
c. Does facility handle ignitable, reactive, or incompatible wastes?	<u>N/A</u>	If YES see ERGO item 4-65 and 4-67.
5. Does facility have hazardous waste containers?	<u>Yes</u>	If YES see ERGO items 4-75 through 4-86.
6. Does facility store hazardous wastes in tanks?	<u>NO</u>	If YES see ERGO items 4-87 through 4-101.
7. Does facility use surface impoundment as a means of treatment, storage, or disposal of hazardous wastes?	<u>NO</u>	If YES see ERGO items 4-102 through 4-110.
8. Does facility have waste piles?	<u>NO</u>	If YES see ERGO items 4-111 through 4-118.
9. Does facility have land treatment of hazardous waste?	<u>NO</u>	If YES see ERGO items 4-119 through 4-126.
10. Does facility have hazardous waste in landfills?	<u>NO</u>	If YES see ERGO items 4-127 through 4-137.

QUESTION/DESCRIPTION

RESPONSE REFERENCE

11. Does facility incinerate hazardous waste?

NO

If YES see
ERGO items 4-
138 through 4-
147.

12. Does facility dispose of hazardous waste in miscellaneous units?

NO

If YES see
ERGO items 4-
148 and 4-149.

13. Does facility have thermal treatment facilities?

NO

If YES see
ERGO items 4-
150 through 4-
152.

14. Does facility have chemical, physical, or biological treatment facilities?

NO

If YES see
ERGO items 4-
153 through 4-
155.

15. Does facility have restricted wastes?

NO

If YES see
ERGO items 4-
156 through 4-
168.

SECTION 5, Natural Resources Management:

1. Does facility have any construction projects?

Yes

If YES see
ERGO item 5-4.

2. Does facility have land management responsibilities?

NO

If YES see
ERGO items 5-7
and 5-8.

3. Does facility have floodplains or wetlands?

NO

If YES see
ERGO item 5-9.

4. Does facility contain a shoreline?

NO

If YES see
ERGO item 5-
12.

QUESTION/DESCRIPTION

RESPONSE

REFERENCE

5. Does facility have endangered or threatened species?

No

If YES see
ERGO items 5-
13 and 5-14.

SECTION 6, Pesticides Management:

1. Do facility personnel engage in the application of pesticides?

No

If YES see
ERGO items 6-7
through 6-16.

2. Does facility store, mix, or formulate pesticides?

No

If YES see
ERGO items 6-
17 through 6-28.

a. Does facility store/use pesticides classified highly toxic or moderately toxic (bearing DANGER, POISON, WARNING, or the skull and crossbones symbol)?

No

If YES see
ERGO items 6-
20 through 6-27.

3. Does facility dispose of pesticides?

No

If YES see
ERGO items 6-
29 through 6-33.

QUESTION/DESCRIPTION

RESPONSE

REFERENCE

SECTION 7, Petroleum, Oil and Lubricant (POL) Management:

1. Does the facility store, transport, or dispense petroleum products?
Only gasoline in 5-gal containers for small boats & generators
2. Have there been any discharges of oil at the facility?
3. Does the facility have any bulk storage tanks over 660 gallons?
4. Does the facility use dikes as a means of containment for petroleum storage tanks?
5. Does the facility have any pipelines?
6. Does the facility sell used oil?

Yes

If YES see ERGO items 7-5 through 7-12.

No

If YES see ERGO items 7-13 through 7-14.

No

If YES, see ERGO item 7-16.

N/A

If YES see ERGO items 7-17 and 7-18.

No

If YES see ERGO items 7-20 through 7-22.

No

If YES, see ERGO item 7-23.

SECTION 8, Solid Waste Management:

1. Does the facility collect or store solid waste on site?

Yes

If YES, see ERGO items 8-4 through 8-12.

2. All Corps facilities must should recycle and reduce solid waste.

*

See ERGO item 8-13.

** Office paper is recycled through WFC.*

QUESTION/DESCRIPTION

RESPONSE

REFERENCE

a. Does facility have over 100 office workers?	<u>NO</u>	If YES see ERGO item 8-14.
b. Do more than 500 families reside at the facility?	<u>N/A</u>	If YES see ERGO item 8-15.
c. Does the facility generate waste corrugated containers?	<u>NO</u>	If YES see ERGO item 8-16.
3. Does facility have land disposal on site?	<u>NO</u>	If YES see ERGO items 8-17 through 8-31.
a. Does facility dispose of water treatment plant sludges?	<u>NO</u>	If YES see ERGO 8-18.
b. Does facility dispose of incinerator or air pollution control residues?	<u>NO</u>	If YES see ERGO item 8-19.
c. Does the facility accept special wastes?	<u>NO</u>	If YES see ERGO item 8-21.
4. Does the facility have a closure site?	<u>NO</u>	If YES, see ERGO items 8-32 and 8-33.
5. Does the facility have a new landfill site?	<u>NO</u>	If YES, see ERGO items 8-34 and 8-35.
6. Does facility have a thermal processing facility?	<u>NO</u>	If YES see ERGO items 8-36 through 8-49.

QUESTION/DESCRIPTION

RESPONSE

REFERENCE

7. Does the facility utilize resource recovery facilities?

N/A

If YES see ERGO items 8-50 and 8-51.

a. If the facility does NOT utilize resource recovery facilities, a report must be filed with the Administrator explaining the decision not to utilize.

N/A

See ERGO item 8-50.

SECTION 9, Special Pollutants Management:

1. Does facility have PCBs of any kind?

Small quantities for use as laboratory standards. Also small quantities of contaminated environmental samples.

Yes

If YES, see ERGO items 9-4 through 9-11.

a. Does facility have a PCB waste landfill?

NO

If YES, see ERGO item 9-10.

b. Does facility have PCB storage or disposal facilities?

Have small quantities of PCB-contaminated laboratory water and environmental samples.

Yes

If YES, see ERGO item 9-11.

2. Does facility have PCB transformers?

NO

If YES, see ERGO items 9-12 through 9-18.

3. Has facility had a PCB spill?

NO

If YES see ERGO item 9-19.

4. Does facility have PCB items (PCB-contaminated heat transfer or hydraulic systems, electromagnets, switches, voltage regulators, capacitors, circuit breakers, reclosers, or cables)?

NO

If YES see ERGO items 9-20 through 9-23.

5. Does facility use PCBs in research?

Yes

Small quantities for use as laboratory standards.

If YES see ERGO item 9-24.

QUESTION/DESCRIPTION	RESPONSE	REFERENCE
6. Does facility store PCBs?	<u>Yes</u>	If YES see ERGO items 9-25 through 9-29.
7. Does facility transport PCBs or PCB Items? <i>We have PCB-contaminated water transported by a licensed hazardous waste hauler for off-site disposal.</i>	<u>Yes</u> NO	If YES see ERGO items 9-30 and 9-31.
8. Does facility dispose of PCBs or PCB Items?	<u>No</u>	If YES see ERGO items 9-32 through 9-41.
9. Does facility demolish, renovate, or strip components from structures containing friable asbestos?	<u>No</u>	If YES see ERGO items 9-42 through 9-52.
10. Does facility dispose, or transport for disposal, asbestos or asbestos-containing waste?	<u>No</u>	If YES see ERGO items 9-53 through 9-57.
11. Is facility located in an area with a potential radon problem?	<u>No</u>	If YES see ERGO items 9-58 through 9-60.
12. Does facility have any possible sources of noise pollution, or have a noise hazardous area?	<u>No</u>	If YES see ERGO items 9-61 through 9-68.
SECTION 10, Underground Storage Tanks (USTs) Management:		
1. Does facility have organizational fuel tanks?	<u>No</u>	If YES see ERGO item 10-5.
2. Has facility repaired, or is it planning to repair, a UST?	<u>N/A</u>	If YES see ERGO item 10-10.

QUESTION/DESCRIPTION

RESPONSE

REFERENCE

3. Does facility have hazardous waste USTs?

NO

If YES see
ERGO item 10-
19.

4. Does facility have a deferred UST?

NO

If YES see
ERGO item 10-
20.

5. Does facility have a metallic UST?

NO

If YES see
ERGO items
10-23 and 10-35.

6. Does facility have newly-installed USTs (i.e., after May, 1986)?

NO

If YES see
ERGO items
10-24 through
10-27.

7. Have facility USTs undergone a change of service, or closure?

NO

If YES see
ERGO items
10-28 through
10-34.

8. Does facility have substandard USTs?

NO

If YES see
ERGO item 10-
35.

SECTION 11, Wastewater Management:

1. Does facility have a floating plant?

NO

If YES see
ERGO item 11-
4.

2. Does facility have any point source discharges, or does facility have domestic sewage treatment plants?

NO

If YES see
ERGO items
11-5 through
11-8.

QUESTION/DESCRIPTION

RESPONSE REFERENCE

3. Does facility have storm water discharge not covered by a NPDES permit?

No

If YES see
ERGO item 11-9.

4. Does facility discharge to a privately-owned treatment works (POTW)?

No

If YES see
ERGO items
11-10 through
11-12.

5. Does facility have any personnel engaged in the operation of water pollution control devices?

No

If YES see
ERGO item 11-13.

6. Does facility have a wastewater treatment plant?

No

If YES see
ERGO items
11-14 and 11-15.

7. Does facility have electroplating operations?

No

If YES
ERGO item
16 through
27.

8. Does facility conduct or issue permits for dredging operations?

No

If YES see
ERGO items
11-28 through
11-35.

SECTION 12, Water Quality Management:

1. Does facility perform contaminant monitoring on its water supply?

Yes

If YES see
ERGO items
12-18 through
12-43.

2. Is facility located near a sole source aquifer?

?

If YES see
ERGO item 12-44.

QUESTION/DESCRIPTION

RESPONSE

REFERENCE

3. Does facility use surface water or ground water under the influence of surface water for drinking water?

NO

If YES see
ERGO items
12-45 through
48.

4. Does facility have recreational potable water sources?

NO

If YES see
ERGO item 12-
49.

5. Does facility have swimming beaches?

NO

If YES see
ERGO item 12-
50.

6. Does facility have swimming pools?

NO

If YES see
ERGO item 12-
51.

7. Do facility's waters support watercraft?

NO

If YES see
ERGO items
12-52.

8. Is facility authorized to provide emergency drinking water?

NO

If YES see
ERGO item 12-
53.

Signature of individual completing this form:

Brian J. Condit

Date completed:

10-17-92



ACKNOWLEDGEMENT OF NOTIFICATION OF HAZARDOUS WASTE ACTIVITY

This is to acknowledge that you have filed a Notification of Hazardous Waste Activity for the installation located at the address shown in the box below to comply with Section 3010 of the Resource Conservation and Recovery Act (RCRA). Your EPA Identification Number for that installation appears in the box below. The EPA Identification Number must be included on all shipping manifests for transporting hazardous wastes; on all Annual Reports that generators of hazardous waste, and owners and operators of hazardous waste treatment, storage and disposal facilities must file with EPA; on all applications for a Federal Hazardous Waste Permit; and other hazardous waste management reports and documents required under Subtitle C of RCRA.

EPA I.D. NUMBER

MA7960012568

US ARMY CORPS OF ENGINEERS
WATER QUALITY LABORATORY
HUBBARDSTON

MA 01452

INSTALLATION ADDRESS

BARRE FALLS DAM
BARRE

MA 01005

ERGO

Environmental Review Guide for Operations

PRE-ASSESSMENT ENVIRONMENTAL MANAGEMENT QUESTIONNAIRE

This questionnaire will provide background information necessary to plan and conduct an environmental compliance assessment.

Name of Facility: BARRZ FALLS WILDLIFE MANAGEMENT AREA

QUESTION/DESCRIPTION

RESPONSE REFERENCE

SECTION 1, Air Emissions Management:

1. Does facility operate a fuel burner (central steam plant, or hot water or hot water steam boiler)?

NO

If YES see
ERGO items 1-4
through 1-15.

2. Does facility operate an incinerator?

NO

If YES see
ERGO items 1-16
through 1-18.

3. Does facility dispense, store, or transfer gasoline?

NO

If YES see
ERGO items 1-19
through 1-23.

4. Does facility have volatile organic compounds (VOCs) (generally, but not exclusively, found in solvents)?

NO

If YES see
ERGO items 1-24
through 1-28.

5. Does facility have fugitive emissions from volatile hazardous air pollutant (VHAP) equipment?

NO

If YES see
ERGO items 1-29
through 1-35.

6. Does facility use VOC-based solvent degreasers?

NO

If YES see
ERGO item 1-36.

QUESTION/DESCRIPTION

RESPONSE REFERENCE

SECTION 2, Cultural and Historic Resources Management:

1. Does the facility have any properties under its jurisdiction?

NO

If YES see
ERGO items 2-4
through 2-10.

2. Does the facility have cultural resources? List the facility's
cultural resources below:

NO

If YES see
ERGO items 2-
11 through 2-14.

a. Are the facility's master plan or operational management plan (OMP)
public documents?

YES

If YES see
ERGO item 2-
13.

3. Does the facility have an operational project?

NO

If YES see
ERGO item 2-
15.

4. Does the facility have any Native American graves or artifacts, or
have any been discovered during an operation?

NO

If YES see
ERGO item 2-
16.

5. Does the facility have an archeological or historical collection?

NO

If YES see
ERGO items 2-
17 through 2-28.

QUESTION/DESCRIPTION

RESPONSE

REFERENCE

SECTION 3, Hazardous Materials Management:

1. Does the facility store any hazardous materials?

NO

If YES see
ERGO items 3-5
through 3-8.

2. Have there been any releases of hazardous substances at the facility?

NO

If YES see
ERGO items 3-9
through 3-11.

3. Are there any extremely hazardous substances at the facility?

NO

If YES see
ERGO item 3-12
and 3-13.

4. Does the facility: Have extremely hazardous substances in excess of 500 lbs or the threshold planning quantity (see appendix III-1); have hazardous chemicals in excess of 10,000 lbs; or fall under Standard Industrial Classification Codes 20 to 39?

NO

If YES see
ERGO item 3-12
and 3-13.

5. Does the facility store compressed gases, flammable/combustibles, or acids?

NO

If YES see
ERGO items 3-
14 through 3-27.

6. Does the facility transport hazardous material, or offer such materials for transport?

NO

If YES see
ERGO items 3-
28 through 3-31.

QUESTION/DESCRIPTION

RESPONSE

REFERENCE

SECTION 4, Hazardous Waste Management:

1. Is facility a generator of hazardous waste?

NOIf YES see
ERGO items 4-8
through 4-15.

a. Is facility a small quantity generator?

NOIf YES see
ERGO items 4-
16 through 4-18.

b. Is facility a very small quantity generator?

NOIf YES see
ERGO item 4-
19.

Complete this section before proceeding.

Any waste which is not excepted, which is listed in 40 CFR 261, or which exhibits the following characteristics is a hazardous waste:

- Ignitability (flash point <140 F)
- or Corrosivity (pH <2 or >12.5)
- or TCLP Toxicity (for As, Ba, Cd, Cr, Pb, Hg, Se, Ag, and selected pesticides.
- or Reactive. (or CN)

The following are hazardous wastes that may typically be found at a Corps facility:

CHECK IF USED AT THIS FACILITY	Vol Gen/mo		Vol Accum	
	Lb.	Kg.	Lb.	Kg.
___ Solvents	___	___	___	___
___ Liquid Paint	___	___	___	___
___ Paint stripper, remover, or thinner	___	___	___	___
___ Spray paint booth air filters	___	___	___	___
___ Pesticides, Insecticides, Herbicides, etc.	___	___	___	___
___ NBC filters and test kits	___	___	___	___
___ DS2 (diethylene triamine)	___	___	___	___
___ STB (super topical bleach)	___	___	___	___

___	Ordnance, ammunition, explosives & residues	___	___	___	___
___	Battery acid & Caustics (in unserviceable batteries)	___	___	___	___
___	Some pharmaceuticals	___	___	___	___
___	POL Tank Farm fuel system filters	___	___	___	___
___	De-icing solution	___	___	___	___
___	Printing ink, ink solvents and cleaners	___	___	___	___
___	Absorbant materials and soil contaminated with hazardous waste	___	___	___	___
___	Other_____	___	___	___	___
___	Other_____	___	___	___	___
___	Other_____	___	___	___	___
	TOTAL	___	___	___	___

* e.g., Trichlorethane, Methylene chloride, Tetrachloroethylene, 1,1,1 Trichloroethane, Carbon Tetrachloride, Chlorinated Fluorocarbons, Toluene, MEK, Break-free in liquid form, Mineral Spirits, Xylene

USEPA Generator Designation: ___ Unregulated ___ Small Qty ___ Large Qty

QUESTION/DESCRIPTION	RESPONSE	REFERENCE
----------------------	----------	-----------

2. Does facility export/import hazardous waste from/to the United States?

NO

If YES see ERGO items 4-23 through 4-31.

3. Does facility transport hazardous waste?

NO

If YES see ERGO items 4-32 through 4-37.

4. Does facility have a treatment, storage, or disposal facility (TSDF)?

NO

If YES see ERGO items 4-38 through 4-74.

QUESTION/DESCRIPTION

RESPONSE

REFERENCE

a. Does the TSD facility receive waste from a foreign source?	<u>NO</u>	If YES see ERGO item 4-42.
b. Does facility receive waste from off-site sources?	<u>NO</u>	If YES see ERGO items 4-46 and 4-47.
c. Does facility handle ignitable, reactive, or incompatible wastes?	<u>NO</u>	If YES see ERGO item 4-65 and 4-67.
5. Does facility have hazardous waste containers?	<u>NO</u>	If YES see ERGO items 4-75 through 4-86.
6. Does facility store hazardous wastes in tanks?	<u>NO</u>	If YES see ERGO items 4-87 through 4-101.
7. Does facility use surface impoundment as a means of treatment, storage, or disposal of hazardous wastes?	<u>NO</u>	If YES see ERGO items 4-102 through 4-110.
8. Does facility have waste piles?	<u>NO</u>	If YES see ERGO items 4-111 through 4-118.
9. Does facility have land treatment of hazardous waste?	<u>NO</u>	If YES see ERGO items 4-119 through 4-126.
10. Does facility have hazardous waste in landfills?	<u>NO</u>	If YES see ERGO items 4-127 through 4-137.

QUESTION/DESCRIPTION

RESPONSE REFERENCE

11. Does facility incinerate hazardous waste?

NO

If YES see
ERGO items 4-
138 through 4-
147.

12. Does facility dispose of hazardous waste in miscellaneous units?

NO

If YES see
ERGO items 4-
148 and 4-149.

13. Does facility have thermal treatment facilities?

NO

If YES see
ERGO items 4-
150 through 4-
152.

14. Does facility have chemical, physical, or biological treatment facilities?

NO

If YES see
ERGO items 4-
153 through 4-
155.

15. Does facility have restricted wastes?

NO

If YES see
ERGO items 4-
156 through 4-
168.

SECTION 5, Natural Resources Management:

1. Does facility have any construction projects?

YES

If YES see
ERGO item 5-4.

2. Does facility have land management responsibilities?

YES

If YES see
ERGO items 5-7
and 5-8.

3. Does facility have floodplains or wetlands?

YES

If YES see
ERGO item 5-9.

4. Does facility contain a shoreline?

NO

If YES see
ERGO item 5-
12.

QUESTION/DESCRIPTION

RESPONSE

REFERENCE

5. Does facility have endangered or threatened species?

NO

If YES see
ERGO items 5-
13 and 5-14.

SECTION 6, Pesticides Management:

1. Do facility personnel engage in the application of pesticides?

NO

If YES see
ERGO items 6-7
through 6-16.

2. Does facility store, mix, or formulate pesticides?

NO

If YES see
ERGO items 6-
17 through 6-28.

a. Does facility store/use pesticides classified highly toxic or moderately toxic (bearing DANGER, POISON, WARNING, or the skull and crossbones symbol)?

N/A

If YES see
ERGO items 6-
20 through 6-27.

3. Does facility dispose of pesticides?

NO

If YES se
ERGO items 6-
29 through 6-33.

QUESTION/DESCRIPTION

RESPONSE

REFERENCE

SECTION 7, Petroleum, Oil and Lubricant (POL) Management:

1. Does the facility store, transport, or dispense petroleum products?

YES

If YES see
ERGO items 7-5
through 7-12.

2. Have there been any discharges of oil at the facility?

NO

If YES see
ERGO items 7-
13 through 7-14.

3. Does the facility have any bulk storage tanks over 660 gallons?

NO

If YES, see
ERGO item 7-
16.

4. Does the facility use dikes as a means of containment for petroleum storage tanks?

NO

If YES see
ERGO items 7-
17 and 7-18.

5. Does the facility have any pipelines?

NO

If YES see
ERGO items 7-
20 through 7-22.

6. Does the facility sell used oil?

NO

If YES, see
ERGO item 7-
23.

SECTION 8, Solid Waste Management:

1. Does the facility collect or store solid waste on site?

NO

If YES, see
ERGO items 8-4
through 8-12.

2. All Corps facilities must should recycle and reduce solid waste.

NO

See ERGO item
8-13.

QUESTION/DESCRIPTION	RESPONSE	REFERENCE
a. Does facility have over 100 office workers?	<u>NO</u>	If YES see ERGO item 8- 14.
b. Do more than 500 families reside at the facility?	<u>NO</u>	If YES see ERGO item 8- 15.
c. Does the facility generate waste corrugated containers?	<u>NO</u>	If YES see ERGO item 8- 16.
3. Does facility have land disposal on site?	<u>NO</u>	If YES see ERGO items 8- 17 through 8-31.
a. Does facility dispose of water treatment plant sludges?	<u>NO</u>	If YES see ERGO 8-18.
b. Does facility dispose of incinerator or air pollution control residues?	<u>NO</u>	If YES see ERGO item 8- 19.
c. Does the facility accept special wastes?	<u>NO</u>	If YES see ERGO item 8- 21.
4. Does the facility have a closure site?	<u>NO</u>	If YES, see ERGO items 8- 32 and 8-33.
5. Does the facility have a new landfill site?	<u>NO</u>	If YES, see ERGO items 8- 34 and 8-35.
6. Does facility have a thermal processing facility?	<u>NO</u>	If YES see ERGO items 8- 36 through 8-49.

QUESTION/DESCRIPTION

RESPONSE

REFERENCE

7. Does the facility utilize resource recovery facilities?

NO

If YES see
ERGO items 8-
50 and 8-51.

a. If the facility does NOT utilize resource recovery facilities, a report must be filed with the Administrator explaining the decision not to utilize.

See ERGO item
8-50.

SECTION 9, Special Pollutants Management:

1. Does facility have PCBs of any kind?

NO

If YES, see
ERGO items 9-4
through 9-11.

a. Does facility have a PCB waste landfill?

NO

If YES, see
ERGO item 9-
10.

b. Does facility have PCB storage or disposal facilities?

NO

If YES, see
ERGO item 9-
11.

2. Does facility have PCB transformers?

NO

If YES, see
ERGO items 9-
12 through 9-18.

3. Has facility had a PCB spill?

NO

If YES see
ERGO item 9-
19.

4. Does facility have PCB Items (PCB-contaminated heat transfer or hydraulic systems, electromagnets, switches, voltage regulators, capacitors, circuit breakers, reclosers, or cables)?

NO

If YES see
ERGO items 9-
20 through 9-23.

5. Does facility use PCBs in research?

NO

If YES see
ERGO item 9-
24.

QUESTION/DESCRIPTION

RESPONSE

REFERENCE

6. Does facility store PCBs?

N

If YES see
ERGO items 9-
25 through 9-29.

7. Does facility transport PCBs or PCB Items?

N

If YES see
ERGO items 9-
30 and 9-31.

8. Does facility dispose of PCBs or PCB Items?

N

If YES see
ERGO items 9-
32 through 9-41.

9. Does facility demolish, renovate, or strip components from structures containing friable asbestos?

N

If YES see
ERGO items 9-
42 through 9-52.

10. Does facility dispose, or transport for disposal, asbestos or asbestos-containing waste?

N

If YES see
ERGO items 9-
53 through 9-57

11. Is facility located in an area with a potential radon problem?

N

If YES see
ERGO items 9-
58 through 9-60.

12. Does facility have any possible sources of noise pollution, or have a noise hazardous area?

N

If YES see
ERGO items 9-
61 through 9-68.

SECTION 10, Underground Storage Tanks (USTs) Management:

1. Does facility have organizational fuel tanks?

N

If YES see
ERGO item 10-
5.

2. Has facility repaired, or is it planning to repair, a UST?

N

If YES see
ERGO item 10-
10.

QUESTION/DESCRIPTION

RESPONSE

REFERENCE

3. Does facility have hazardous waste USTs?

N

If YES see
ERGO item 10-
19.

4. Does facility have a deferred UST?

N

If YES see
ERGO item 10-
20.

5. Does facility have a metallic UST?

N

If YES see
ERGO items
10-23 and 10-35.

6. Does facility have newly-installed USTs (i.e., after May, 1986)?

N

If YES see
ERGO items
10-24 through
10-27.

7. Have facility USTs undergone a change of service, or closure?

N

If YES see
ERGO items
10-28 through
10-34.

8. Does facility have substandard USTs?

N

If YES see
ERGO item 10-
35.

SECTION 11, Wastewater Management:

1. Does facility have a floating plant?

N

If YES see
ERGO item 11-
4.

2. Does facility have any point source discharges, or does facility have domestic sewage treatment plants?

N

If YES see
ERGO items
11-5 through
11-8.

QUESTION/DESCRIPTION

RESPONSE

REFERENCE

3. Does facility have storm water discharge not covered by a NPDES permit?

N

If YES see
ERGO item 11-9.

4. Does facility discharge to privately-owned treatment works (POTW)?

N

If YES see
ERGO items
11-10 through
11-12.

5. Does facility have any personnel engaged in the operation of water pollution control devices?

N

If YES see
ERGO item 11-13.

6. Does facility have a wastewater treatment plant?

N

If YES see
ERGO items
11-14 and 11-15.

7. Does facility have electroplating operations?

N

If YES
ERGO item
16 through 11-27.

8. Does facility conduct or issue permits for dredging operations?

N

If YES see
ERGO items
11-28 through
11-35.

SECTION 12, Water Quality Management:

1. Does facility perform contaminant monitoring on its water supply?

N

If YES see
ERGO items
12-18 through
12-43.

2. Is facility located near a sole source aquifer?

?

If YES see
ERGO item 12-44.

QUESTION/DESCRIPTION

RESPONSE REFERENCE

3. Does facility use surface water or ground water under the influence of surface water for drinking water?

N

If YES see
ERGO items
12-45 through
48.

4. Does facility have recreational potable water sources?

N

If YES see
ERGO item 12-
49.

5. Does facility have swimming beaches?

N

If YES see
ERGO item 12-
50.

6. Does facility have swimming pools?

N

If YES see
ERGO item 12-
51.

7. Do facility's waters support watercraft?

Y

If YES see
ERGO items
12-52.

8. Is facility authorized to provide emergency drinking water?

N

If YES see
ERGO item 12-
53.

Signature of individual completing this form:

S. L. Thunhor

Date completed:

3-23-82

Appendix B

12 June 1992

MEMORANDUM FOR NED Executive Staff

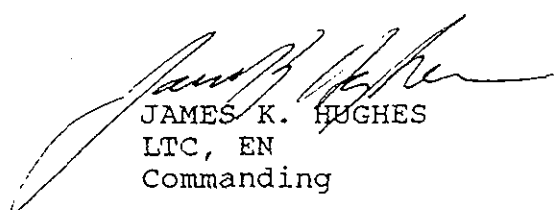
SUBJECT: NED Environmental Compliance Coordinator

1. In January 1991, John Elmore, Chief, Operations, Construction and Readiness Division, directed division and district operations offices to formally designate Environmental Compliance Coordinators (ECC's). The Director of Operations designated Bruce Williams, Project Operations and Readiness Division as the New England Division ECC.

2. In a follow-up memo dated 31 March 1992, The Director of Civil Works expanded the role of the Environmental Compliance Coordinators to be utilized as division or district environmental coordinators. This is a coordination, as opposed to an operative assignment. The ECC's will support rather than assume environmental compliance responsibilities of the various functional elements (Planning, Engineering, Project Program Management, Logistics, Safety and Occupational Health, and Real Estate, etc.).

3. The Corps of Engineer objective is to develop and maintain a comprehensive and consistent environmental compliance program utilizing the existing Operations "stovepipe", since Operations is responsible for the majority of Corps facilities. In the future, the ECC should be included in the review process of programs or projects that involve environmental compliance as part of the construction, operation or maintenance activities at Corps owned or operated facilities and projects.

4. As a part of the USACE Facilities Environmental Compliance Program, the Director of Civil Works recommended that Commanders should also establish and chair an interdisciplinary Environmental Compliance Steering Committee with representatives from the various affected offices throughout NED. Rather than develop parallel organizations performing the same function, I am tasking the NED Executive Staff to serve an additional function as the Environmental Compliance Steering Committee. The Director of Operations will provide direction and oversight to the ECC and overall coordination with NED Executive Staff.



JAMES K. HUGHES
LTC, EN
Commanding

cf:
Distribution "A"
Bruce Williams ECC



DEPARTMENT OF THE ARMY

U.S. Army Corps of Engineers
WASHINGTON, D.C. 20314-1000

REPLY TO
ATTENTION OF:

2 MAR 1992

S: 31 March 1992

CECW-OA

MEMORANDUM FOR COMMANDERS, ALL MAJOR SUBORDINATE COMMANDS,
DISTRICT COMMANDS, AND LABORATORIES

SUBJECT: USACE Facilities Environmental Compliance

1. In June 1991, Lieutenant General H. J. Hatch, Chief of Engineers, assigned me the mission of assuring that all USACE facilities and associated lands meet environmental standards contained in relevant Federal, DoD, Army, state, and local laws and regulations. In an effort to ensure USACE facilities environmental compliance, commanders are directed to initiate an environmental assessment/deficiency correction program for all Corps property utilizing the Environmental Review Guide for Operations (ERGO). Our overall goal is to complete environmental assessments and develop corrective action plans at all Corps projects and facilities by the end of FY94.

2. ERGO is a checklist of environmental laws and regulations, good management practices, and risk management issues. ERGO was designed as a self assessment tool, but can also be used for formal, or external assessments. Project and facility managers, with technical assistance from district elements, state authorities or private sector contractors, can use ERGO to determine if their operations are being conducted in accordance with environmental laws and regulations. ERGO assessments are a proactive approach to environmental compliance and protection. Findings identified in ERGO assessments should be prioritized and remediation measures performed as routine maintenance work or programmed in the budget process.

3. Civil Works Operations elements are already implementing ERGO, with a goal of completing ERGO assessments at 25 percent of Corps O&M General funded operating projects and facilities this FY. I now ask that you schedule and conduct ERGO assessments at facilities and projects operated with other than O&M General funds (e.g. Mississippi River and Tributaries funded projects, district motor pools, regional warehouses, Corps operated printing plants and photo labs, etc.).

4. ERGO was initially developed for use at operating projects. Since we are now expanding its application, you may find that some refinement is required to thoroughly assess facilities not considered when preparing the current manual. Contact Dr. Diane Mann of CERL-ENM at (217) 373-6741, for help in dealing with facilities and regulations not currently covered in the manual.

CECW-ON

SUBJECT: USACE Facilities Environmental Compliance

... 1044 1002

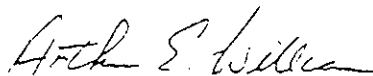
Recommendations for improving the checklist can be directed to Dr. Mann at Department of the Army, Construction Engineering Research Laboratory, Corps of Engineers, P.O. Box 9005, Champaign, Illinois 61826-9005. From efficiency and comparative standpoints we are committed to using a single environmental compliance protocol throughout USACE.

5. I encourage all elements to take a teamwork approach, using existing expertise, rather than developing parallel organizations performing the same function, to initiate, develop, and maintain environmental compliance and assurance at all USACE operated and funded projects, facilities, and activities. This teamwork approach will minimize duplicating effort and assessment costs. Commanders, if they have not already done so, should also establish and chair an interdisciplinary Environmental Compliance Steering Committee with representatives from the various affected offices throughout your organization. The steering committee will provide direction and oversight.

6. In January 1991, John Elmore, Chief, Operations, Construction and Readiness Division, directed division and district operations offices to formally designate Environmental Compliance Coordinators (ECCs). Hereafter, these coordinators will be utilized as division or district environmental compliance coordinators. This is a coordination, as opposed to an operative, assignment. The ECCs will support rather than assume environmental compliance responsibilities of the various functional elements (Planning, Engineering, Project Program Management, Logistics, Safety and Occupation Health, and Real Estate). Our objective is to develop and maintain a comprehensive and consistent environmental compliance program, utilizing the existing Operations "stovepipe", since Operations is responsible for the majority of USACE facilities.

7. We will distribute revised ERGO manuals and follow on compliance materials to each currently designated division and district ECC for dissemination to offices involved in environmental compliance throughout your organization. If there are any updates to the current list of ECCs, please forward their name, office symbol, FTS and commercial telephone numbers, Fax number, and Corps Mail I.D. to CECW-OA, ATTN: Jim Wolcott, by 31 March 1992. Field Operating Activities and Laboratories should also designate and provide information on ECCs.

FOR THE COMMANDER:



ARTHUR E. WILLIAMS
Major General, USA
Director of Civil Works



DEPARTMENT OF THE ARMY

U.S. Army Corps of Engineers
WASHINGTON, D.C. 20314-1000

08 NOV 1991

REPLY TO
ATTENTION OF:

CECW-ON (1130-2-2)

MEMORANDUM FOR COMMANDERS, ALL MAJOR SUBORDINATE COMMANDS,
DISTRICT COMMANDS, FIELD OPERATING ACTIVITIES
AND LABORATORIES

SUBJECT: USACE Facilities Environmental Compliance Program
(Internal)

1. I recently reassigned the mission of assuring that all USACE facilities and associated lands meet environmental standards contained in relevant Federal, DoD, Army, state, and local laws and regulations to the Director of Civil Works. This action is in response to your comments regarding implementing an environmental compliance initiative within USACE.
2. Program oversight will be provided by a steering committee chaired by the Deputy Director of Civil Works, with Logistics, Military Programs, Office of Counsel, Real Estate, Research and Development, Safety and Occupational Health and the U.S. Army Toxic and Hazardous Materials Agency (USATHAMA) represented. An Environmental Compliance Branch within Operations, Construction and Readiness Division will develop, coordinate, and manage the program. Civil Works will provide further details as the USACE Facilities Environmental Compliance Program unfolds.
3. The Corps has an ethical and legal obligation to protect our environment through prevention, compliance, restoration and stewardship. We are counting on your support and enthusiasm, coupled with the evolving USACE Facilities Environmental Compliance Program, to demonstrate our commitment to, and capabilities in, environmental protection.

H. J. HATCH
Lieutenant General, USA
Commanding



DEPARTMENT OF THE ARMY
U.S. Army Corps of Engineers
WASHINGTON, D.C. 20314-1000

REPLY TO
ATTENTION OF:

S: 15 February 1991

CECW-ON

MEMORANDUM FOR MAJOR SUBORDINATE COMMANDS AND DISTRICT COMMANDS

SUBJECT: Environmental Review Guide for Operations (ERGO)

1. I am enclosing the Environmental Review Guide for Operations (ERGO), a checklist for analyzing compliance with environmental laws and regulations at our operating projects. Copies are being sent to all District Operations offices for distribution to projects. We are releasing ERGO as a test document for use during the remainder of FY 91. An implementation workshop is in the planning stage. Specifics will be provided later.
2. Lieutenant General Hatch, in his 14 February 1990 letter, "Strategic Direction for Environmental Engineering", echoed Secretary Cheney's call for DOD to be the "Federal leader in environmental compliance and protection." ERGO is a pro-active approach to compliance.
3. The Construction Engineering Research Laboratory developed ERGO. A steering committee with Division, District and project members from Operations elements provided guidance and direction. Their goal was to produce a self-assessment tool for managers of operating projects with District teams, State agencies, contractors and the United States Army Toxic and Hazardous Waste Agency as potential sources of support.
4. Environmental compliance is a legal and ethical responsibility, an integral part of doing business. I ask that you apply ERGO at one or more projects in each District this FY.
5. We will need feedback to update ERGO for full implementation in FY 92. Every Division and District Operations office should formally designate an environmental compliance coordinator. These individuals will be our POCs regarding ERGO and other environmental matters. They will act as liaisons with the various functional areas within Operations organizations, and with POCs from other elements with environmental responsibilities. Please forward the names, office symbols, and telephone numbers of your Division and District environmental compliance coordinators to CECW-ON, ATTN: Jim Wolcott by 15 February 1991.

FOR THE DIRECTOR OF CIVIL WORKS:

John P. Elmore
JOHN P. ELMORE

Chief, Operations, Construction and
Readiness Division
Directorate of Civil Works



DEPARTMENT OF THE ARMY

U.S. Army Corps of Engineers
WASHINGTON, D.C. 20314-1000

DEC 1991

REPLY TO
ATTENTION OF:

10 January 1992

CECW-ON

MEMORANDUM FOR MAJOR SUBORDINATE COMMANDS

SUBJECT: FY 92 Environmental Assessments at Operating Projects

1. As managers of over 400 water resources projects and stewards of 11.7 million acres of land and water, we individually and corporately have an ethical and legal responsibility to protect the environment. Your positive response to the Environmental Review Guide for Operations (ERGO) we distributed last January is appreciated. We are now ready to proceed with an organization-wide series of ERGO assessments. The FY 92 target is to complete ERGO assessments at 25 percent of our O&M General funded operating projects and facilities. The remainder will be assessed within the following two years. Assessments of facilities and projects operated with other than O&M General funds will be addressed by separate memorandum.

2. As an indication of the importance of this effort, we are providing dedicated O&M funding from headquarters to insure that these assessments are completed. Enclosed is a list of funds available for allocation to each division. These funds are for conducting assessments and converting findings into corrective action plans. Corrective actions are to be implemented through routine budgeting and reprogramming procedures. We ask that you respond with a list of projects, by district, at which ERGO evaluations will be conducted in FY 92, and the portion of your division's total allocation we should distribute to each project on your list. Include the CWIS number with each project you identify. Please respond to Denise White of our Natural Resources Management Branch (CECW-ON) by 10 January 1992.

3. In selecting projects and facilities for FY 92 assessments, we recommend that you concentrate on locations having the greatest potential for significant compliance shortfalls. When evaluating projects, evaluate all functions (hydropower, recreation, etc.) at the same time, to obtain comprehensive project assessments and action plans.

4. Our overall FY 92 budget for ERGO assessments is based on an estimated average cost of \$13K per project. To contain costs, use ERGO in conjunction with the representative sampling techniques presented at the Kansas City and Dallas ERGO orientation sessions.

CECW-ON

SUBJECT: FY 92 Environmental Assessments at Operating Projects

Contact Dr. Diane Mann of Construction Engineering Research Laboratory (CERL) at 217-373-6741 for help in designing representative sampling formats.

5. ERGO was developed as a self-assessment tool for managers of operating projects, with district teams, state agencies, and contractors as potential sources of support. Because of the complexity of the laws and regulations, several respondents from the FY 91 effort commented on the benefits of inter disciplinary teams, including representation from offices such as Engineering, Logistics, Planning, Real Estate, and Safety and Occupational Health. While we are not specifying the way this first round of assessments is to be conducted, we are requiring the involvement, to the extent possible, of personnel from the project or facility being assessed to maximize training benefits. We are also emphasizing quality products that will withstand independent scrutiny.

6. Real Estate is responsible for reviewing user compliance with real estate instrument provisions, and reviewing environmental compliance clauses in such outgrants. ERGO is designed to apply to operating projects and facilities, including outgrants. We understand that in some locations the concept of applying ERGO to outgrants and concessions is surfacing unanticipated issues. Outgrant related issues will be addressed at the joint Real Estate/Natural Resources Meeting scheduled for January 1992. Please be sure that your representatives come to that meeting with complete and current information, both positive and negative. More specific guidance will be issued following that meeting.

7. In January 1992, we will distribute an updated ERGO manual reflecting FY 91 user feedback and incorporating new and revised laws and regulations. As you proceed with ERGO assessments in FY 92, it is especially important that you record "lessons learned" and track costs per assessment, including report and action plan development costs.

8. In support of our commitment to promote environmental compliance at all levels and functions, we have tasked CERL with developing and conducting ERGO orientation programs at our districts during the FY 92/93 time frame. A video based ERGO training course has also been approved for development by Huntsville Division. Additional information will be provided as these projects progress.

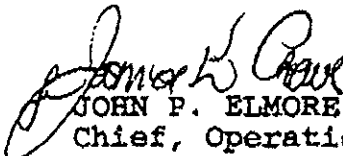
CECW-ON

SUBJECT: FY 92 Environmental Assessments at Operating Projects

5. PERIODIC EAO assessments and the continuation of the environmental compliance program and your comments and recommendations are welcome at any time. They can be directed to Denise White at 202-272-0794.

FOR THE DIRECTOR OF CIVIL WORKS:

Encl


JOHN P. ELMORE, P.E.
Chief, Operations, Construction
and Readiness Division
Directorate of Civil Works

ENVIRONMENTAL REVIEW GUIDE FOR OPERATIONS (ERGO)

FISCAL YEAR 92 BUDGET DISTRIBUTION

The following is a listing of funding distribution in thousands of dollars to division offices for performing ERGO assessments. NOTE: Construction General (CG) and Mississippi River and Tributaries (MR&T) funded projects were not considered.

<u>Division</u>	<u>Amount</u>
LMD	145.0
MRD	105.0
NAD	95.0
NCD	210.0
NED	105.0
NPD	130.0
ORD	455.0
SAD	185.0
SPD	65.0
SWD	<u>430.0</u>
TOTAL	1,925.0



DEPARTMENT OF THE ARMY

U.S. ARMY CORPS OF ENGINEERS
KINGMAN BUILDING
FORT BELVOIR, VA 22060 -

REPLY TO
ATTENTION OF

CEIG-I (20-1g)

17 DEC 1991

MEMORANDUM FOR ALL DISTRICT AND DIVISION COMMANDERS

SUBJECT: Environmental Compliance Concerns Within USACE

1. Earlier this year my office completed a systemic inspection of environmental compliance on lands controlled by USACE. A copy of this report has been recently distributed to your command and should be reviewed by you and members of your staff. We reported to the Chief that compliance problems exist across USACE with the many Federal, State and local environmental laws. We found at HQUSACE, and throughout the Corps:

- a. Organizational confusion as to who was in charge of environmental compliance.
- b. Lack of comprehensive guidance.
- c. Lack of Corps-wide policy on disposal of our hazardous materials and hazardous waste.
- d. Training shortfalls.
- e. Inadequate environmental assessment/inspection on lands we control.
- f. Failure to program resources to insure environmental compliance.
- g. Problems with environmental compliance on Corps lands leased to others for use.
- h. Unfulfilled commitments to mitigate environmental impact on many Corps projects.

2. Our inspection teams visited fourteen districts in eight divisions and a laboratory. Inspectors physically toured over 240 different sites. They found compliance issues at virtually every site visited. Enclosed are pictures of typical findings.

3. I would like to emphasize that the situations shown in the pictures are typical and were not found at only one location or in any one particular district. Rather, they are likely to exist at any site or possibly at every site. I urge you and your staff to make it a special point to visit all land under your jurisdiction, especially lands leased and outgranted to others, with a keen eye to discover any environmental compliance

CEIG-I (20-1g)

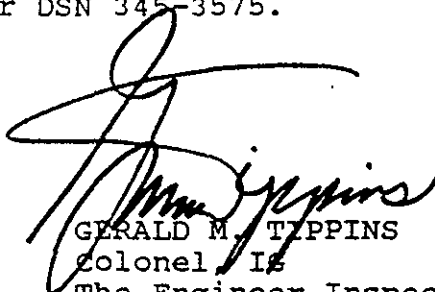
SUBJECT: Environmental Compliance Concerns Within USACE

violations or problems. You then need to follow through and insure resources are programed and dedicated to correct these problems in a timely fashion.

4. The U.S. Army Toxic and Hazardous Materials Agency (USATHAMA) is available to answer environmental questions at 1-800 USA EVHL. My POC for this action is LTC Dan Shuey or LTC Fred Streb at Commercial (703)355-3575 or DSN 345-3575.

FOR THE COMMANDER:

Encl



GERALD M. TIPPINS
Colonel, IE

The Engineer Inspector General

CF:

CECER

CECRL

CETEC

CEWES

CEHSC

CETHA

CECW-ZA (MG Williams)

CECW-O (Mr. Elmore)

ENVIRONMENTAL INSPECTION PHOTOGRAPHS

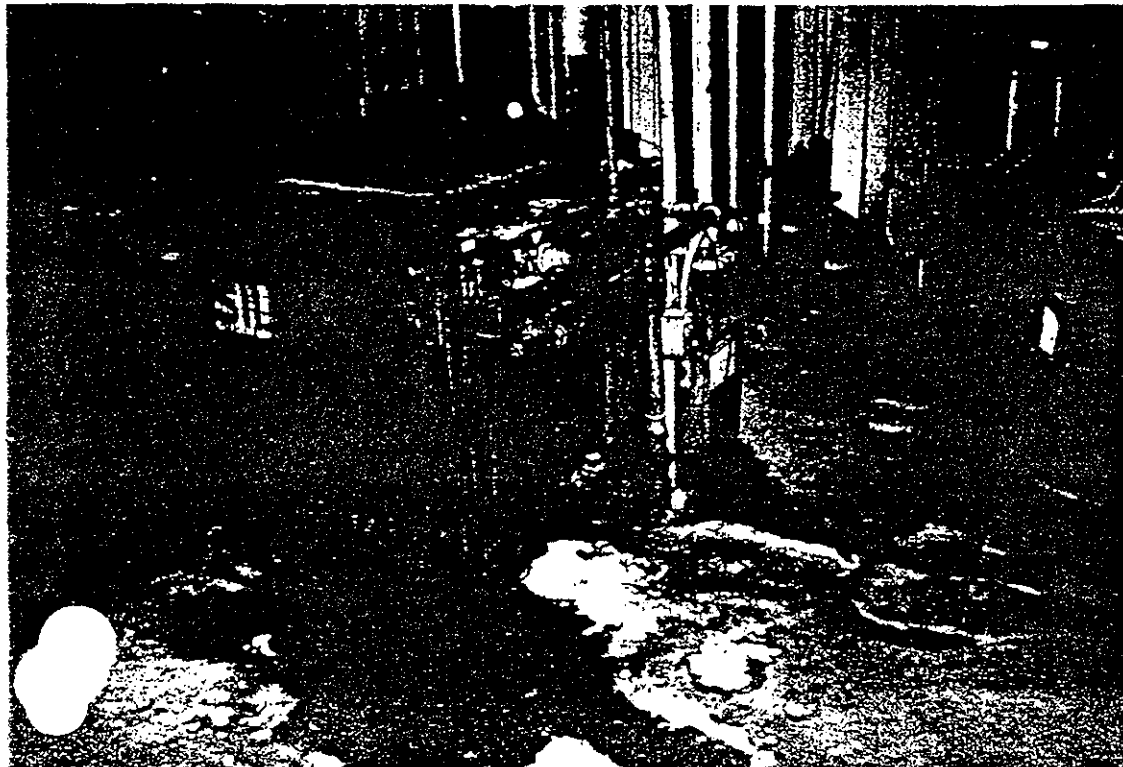


Photograph 1

Storage Area

Area of Concern:

1. Violation of RCRA, CERCLA, and TSCA
2. Soil Contamination
3. Improper storage/disposal of HTW

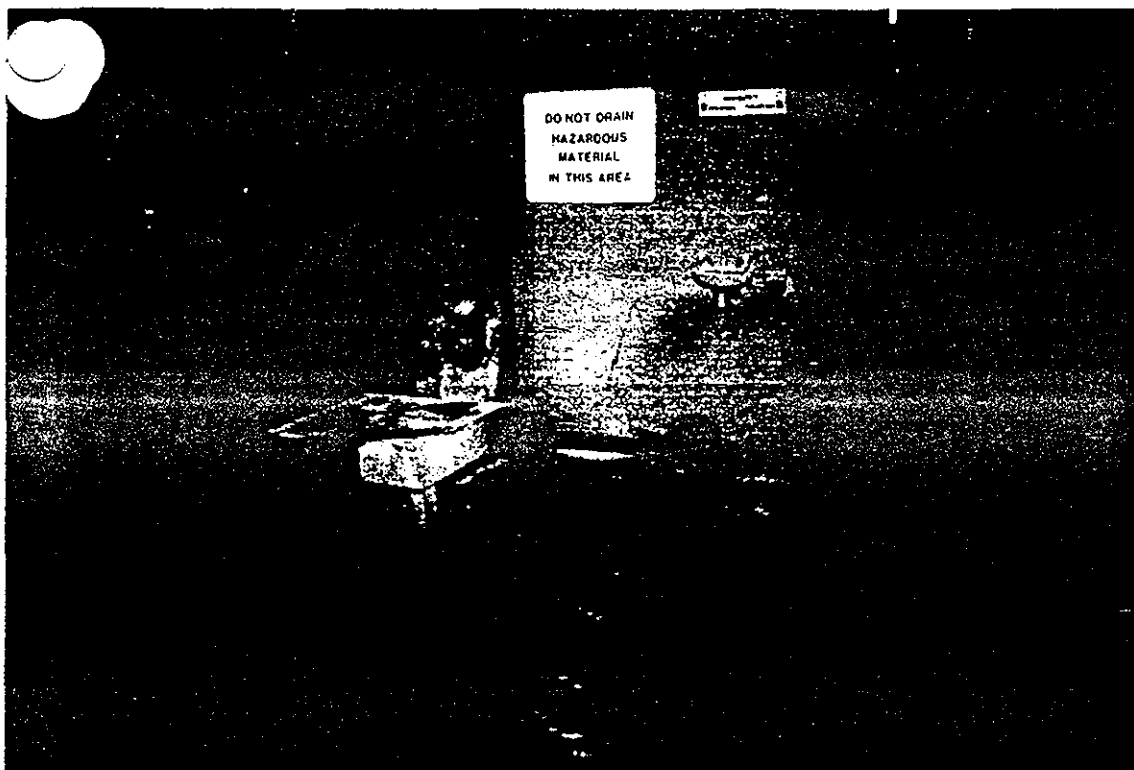


Photograph 2

Maint. & Paint Shop

Area of Concern:

1. Violation of CWA
2. Requires NPDES permit
3. Discharge of Hazardous waste into reported storm drain



Photograph 3

Maint. & Paint
Storage Area

Area of concern:

1. Violation of
RCRA and CWA

2. NPDES permit
required

3. Discharge of
Hazardous Mate-
rial into
reported storm
drain



Photograph 4

Used Oil Storage
Area

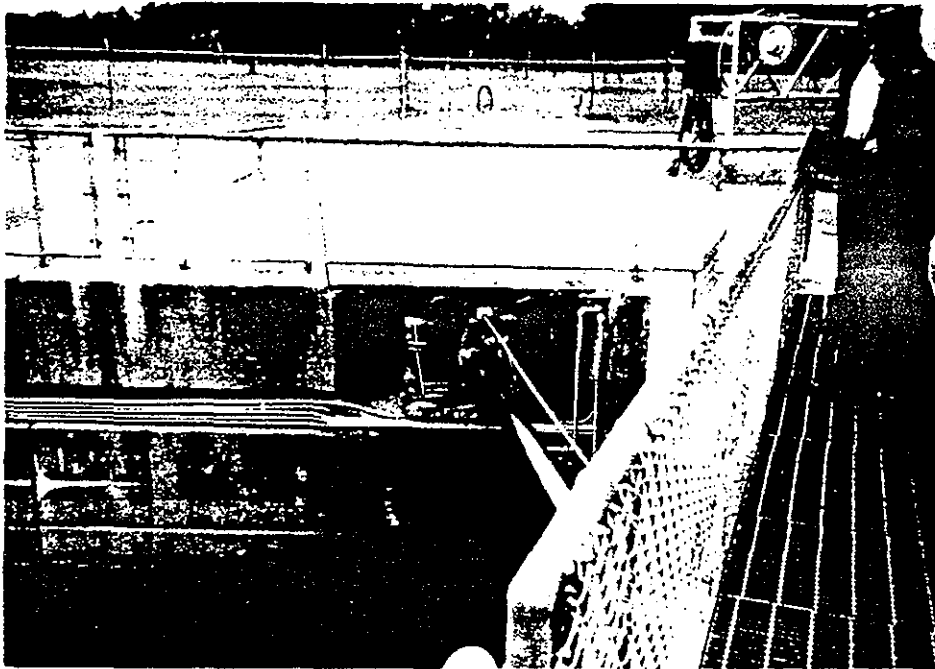
Area of Concern:

1. Violation of
RCRA

2. Soil contami-
nation

3. Requires
spill contingen-
cy plan

4. Housekeeping

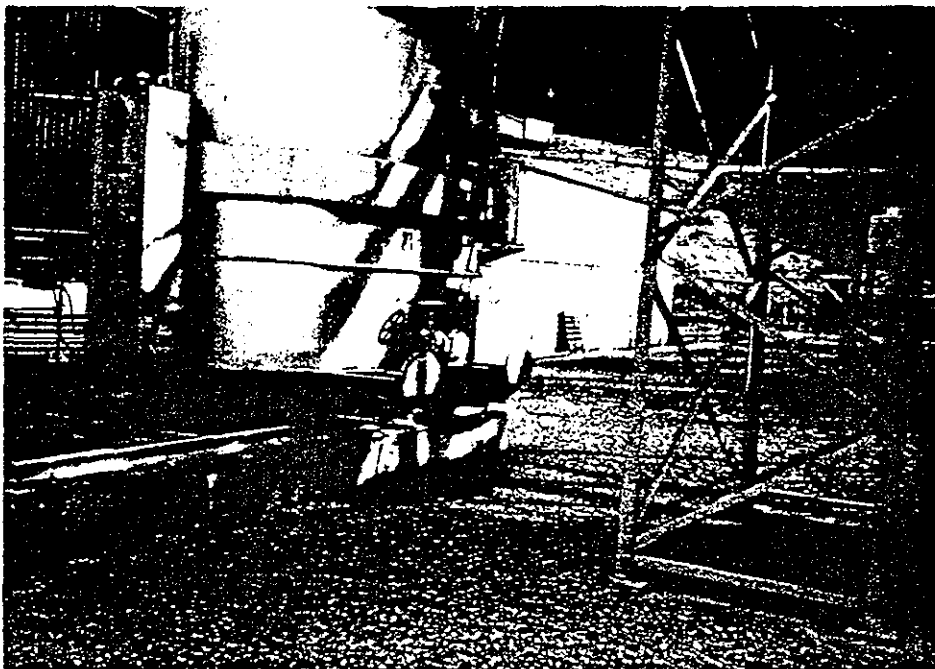


Photograph 5

Lock and Dam

Area of Concern:

1. Violation of CWA
2. Spill prevention plan
3. Contamination of project waters

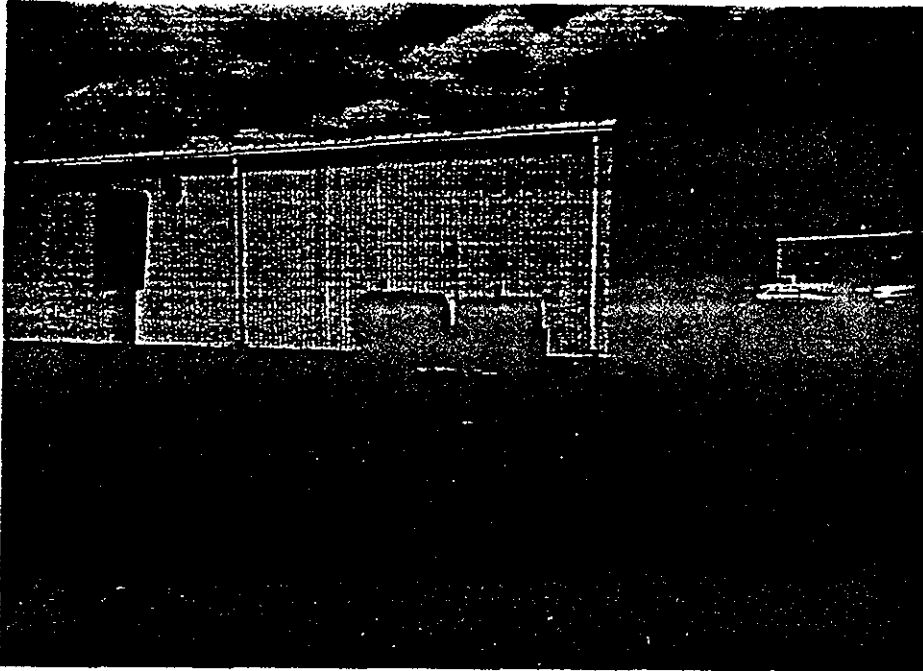


Photograph 6

Hydropower Plant
Transformers

Area of Concern:

1. Violation of CWA and CERCLA
2. Soil contamination
3. Discharge of Hazardous materials (possible PCB)



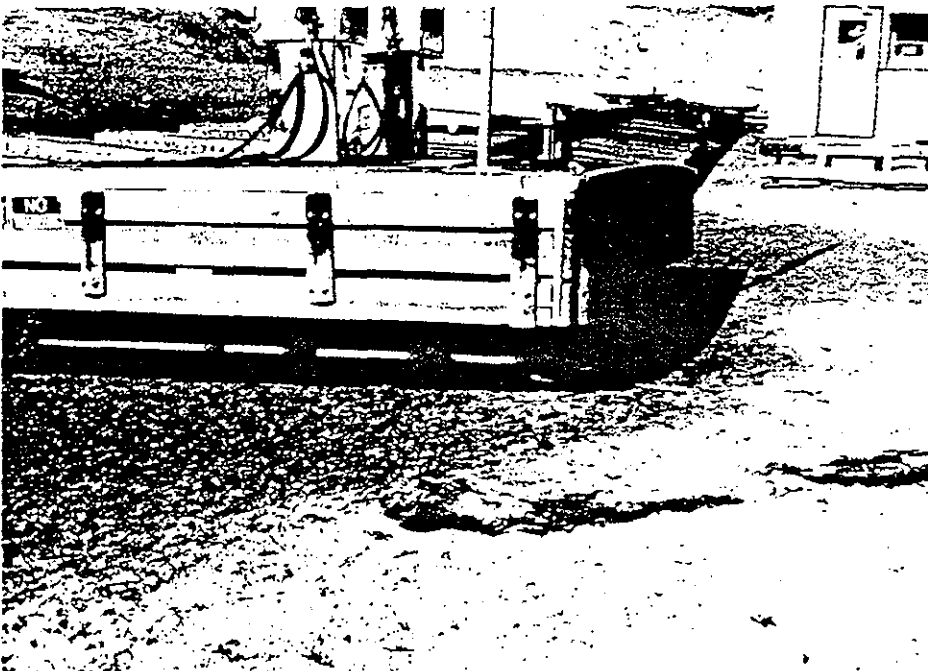
Photograph 7

Diesel Oil Storage Tanks

Area of Concern:

1. Soil contamination

2. Location of storm drain requires spill contingency plan



Photograph 8

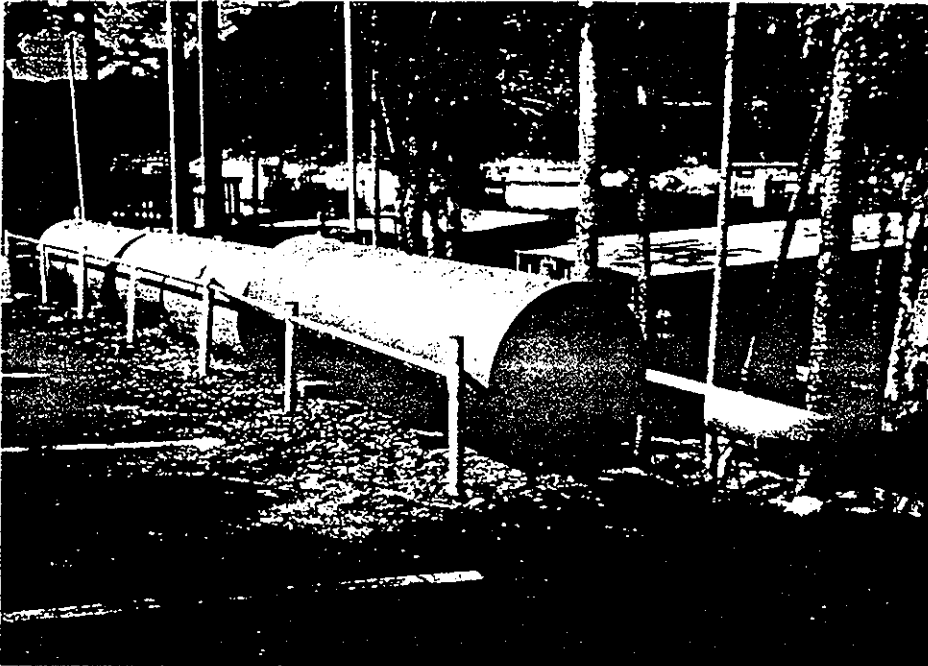
Gasoline Dispensers in a Marina.

Area of Concern:

1. Violation of CWA

2. Contamination of project waters

3. Lack of environmental compliance/enforcement on real estate lease



Photograph 9

Fuel Storage
Area in Marina.

Area of Concern:

1. Violation of CWA
2. Requires spill contingency plan
3. Lack of environmental compliance/enforcement on real estate lease



Photograph 10

Dispensing Area

Area of Concern:

1. Soil contamination
2. Spill contingency plan
3. Housekeeping



Photograph 11

Solid Waste Disposal site

Area of Concern:

1. Violation of solid waste disposal regulations
2. Creosote timbers: Violation of CERCLA
3. Potential NPL site



Photograph 12

Used Drums & Metal Storage Area

Area of Concern:

1. Violation of RCRA and solid waste regulations
2. Soil contamination
3. Improper storage of HTW
4. Lease enforcement

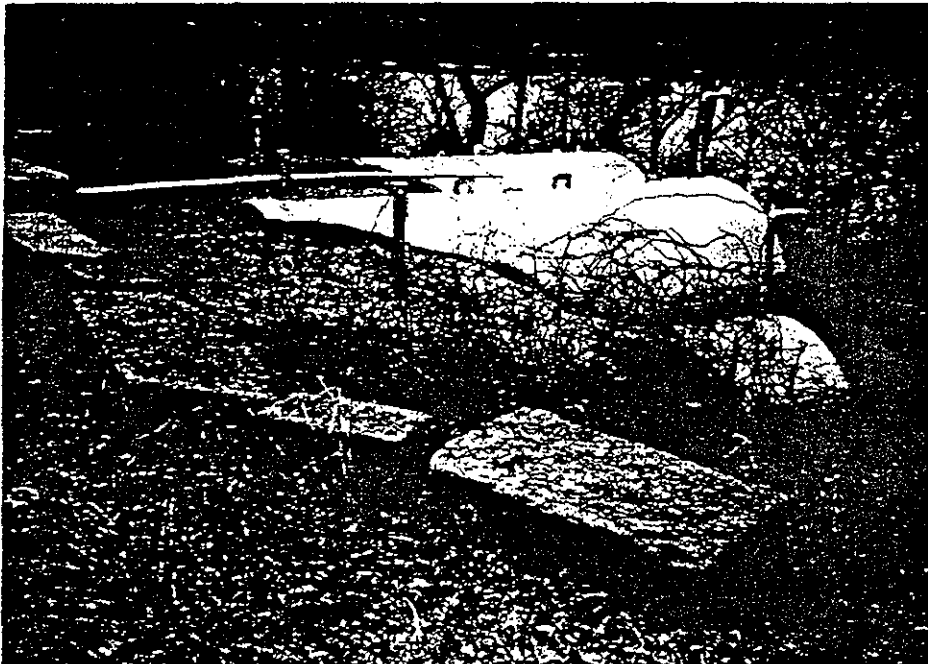


Photograph 13

Storage/Wash and
Fuel Transfer
Site

Area of Concern:

1. Violation of
RCRA and CERCLA
2. Soil
contamination
3. Requires
spill contingency
plan
4. Improper
storage of haz-
ardous materials
5. Housekeeping

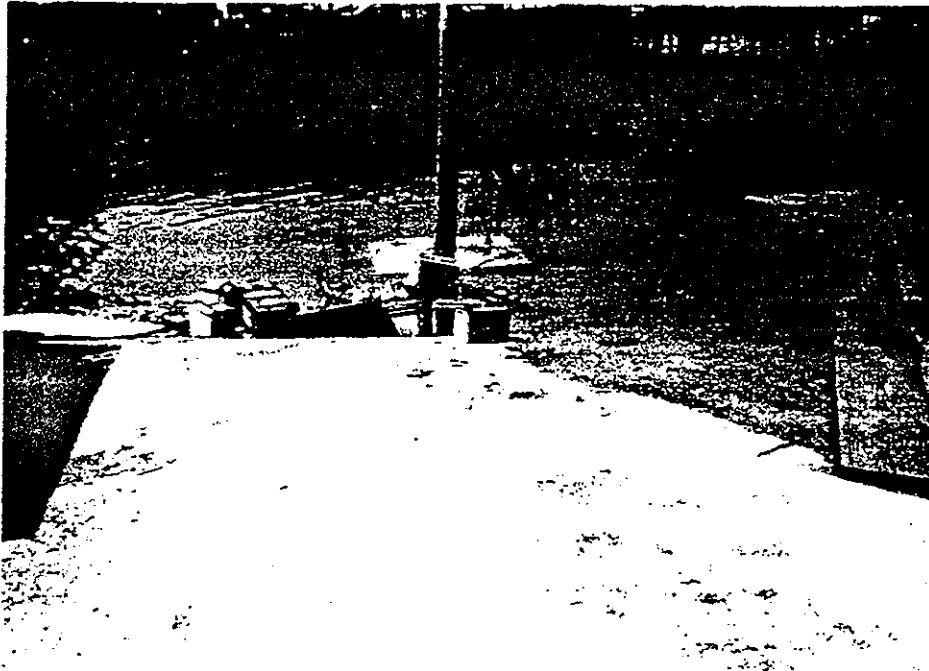


Photograph 14

Fuel Storage
Area

Areas of
Concern:

1. Violation of
RCRA and CWA
2. Requires
spill contingency
plan
3. Underground
fuel storage
tank
requirements



Photograph 15

Batteries Storage Area

Area of concern:

1. Violation of CWA, CERCLA
2. Contamination of Project Waters
3. Lease enforcement



Photograph 16

Contractor's Storage Tank

Area of Concern:

1. Violation of CWA
2. Soil contamination
3. Enforcement of Contract Requirements for Environmental Compliance.
4. Spill contingency plan



Photograph 17

Oil Rights
Outgrant

Area of Concern:

1. Violation of RCRA, CWA
2. Soil Contamination
3. Lease enforcement
4. Spill contingency plan



Photograph 18

Oil, Paint Storage Area

Area of Concern:

1. Violation of RCRA
2. Improper storage of HTW
3. Soil contamination
4. Housekeeping
5. Spill contingency plan

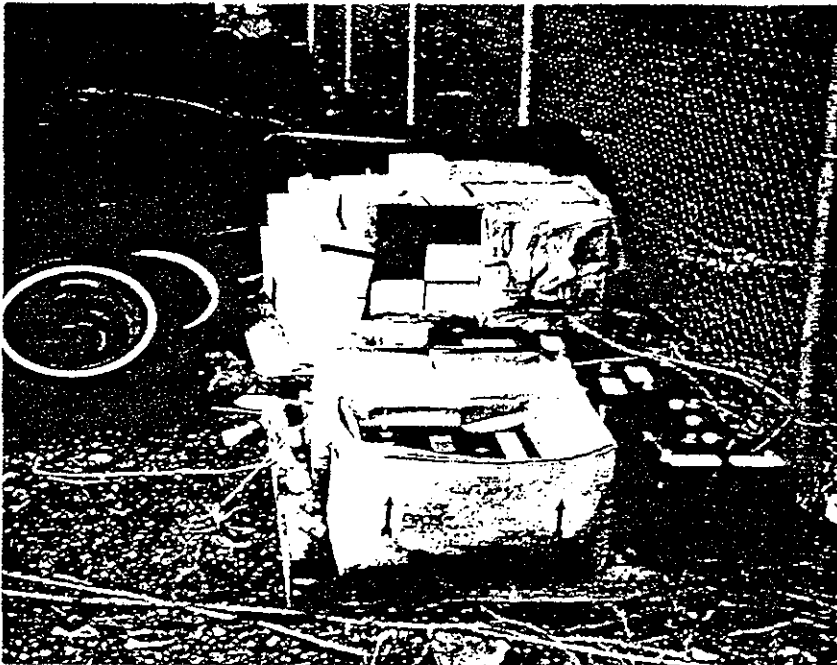


Photograph 19

Paint, Oil Storage Area

Area of Concern:

1. Violation of RCRA, CERCLA
2. Soil contamination
3. Improper storage/disposal of HTW
4. Housekeeping
5. Spill contingency plan

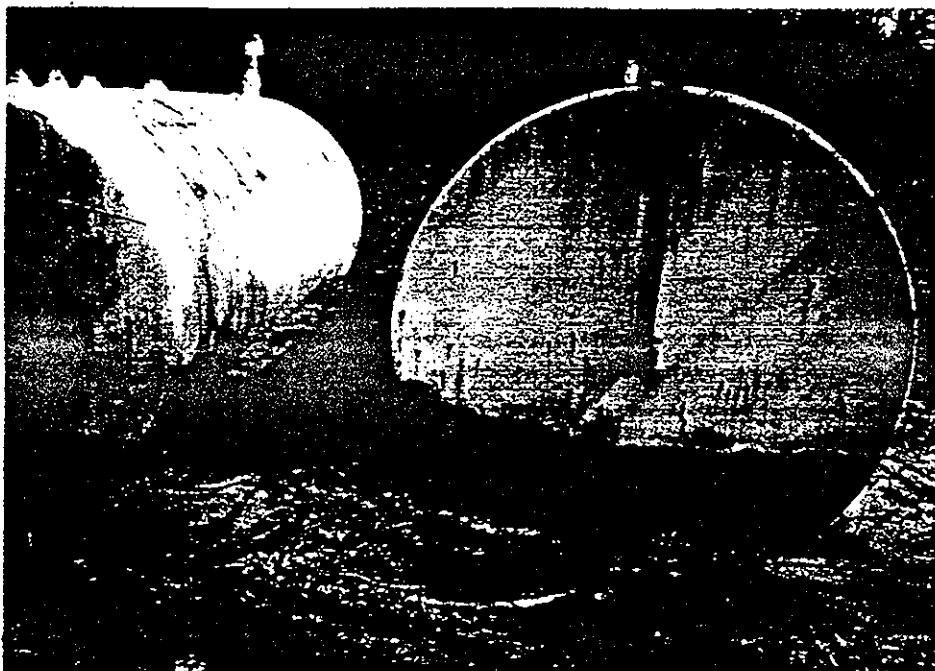


Photograph 20

Batteries Storage Area

Area of Concern:

1. Violation of RCRA, CERCLA
2. Improper storage/disposal of HTW
3. Spill contingency plan



Photograph 21

Fuel Tanks

Area of Concern:

1. Violation of RCRA
2. Spill contingency



Photograph 22

Contractor's
Fuel Dispensing
Area

Area of Concern:

1. Soil contamination
2. Poor house-keeping
3. Spill contingency plan

Appendix C

ENVIRONMENTAL COMPLIANCE

ABBREVIATION LIST

CAA	-	Clean Air Act
CFR	-	Code of Federal Regulations
CO	-	Carbon Monoxide
CWA	-	Clean Water Act
DoD	-	Department of Defense
ECC	-	Environmental Compliance Coordinator
EPA	-	Environmental Protection Agency
ECAS	-	Environmental Compliance Assessment System
ERGO	-	Environmental Review Guide for Operations
FIFRA	-	Federal Insecticide, Fungicide, and Rodenticide Act
FWS	-	U.S. Fish and Wildlife Service
MP	-	Management Practice
MSDS	-	Material Safety Data Sheet
NAAQS	-	National Ambient Air Quality Standards
NEPA	-	National Environmental Policy Act
NFPA	-	National Fire Protection Act
NHCar	-	New Hampshire Code of Administrative Regulations
NHPA	-	National Historic Preservation Act
NHRM	-	Natural and Historic Resources Management
NO ^x	-	Nitrogen Oxides
NPDES	-	National Pollutant Discharge Elimination System
NRM	-	Natural Resources Management
OHSPC	-	Oil and Hazardous Substances Pollution Contingency Plan
OMP	-	Operational Management Plan
PCB's	-	Polychlorinated Biphenyls
pCi/L	-	picoCurie per Liter
PMP	-	Pest Management Plan
POL	-	Petroleum Based Fuel or Lubricant
PPM	-	Parts Per Million
RCRA	-	Resource Conservation and Recovery Act
SARA	-	Superfund Amendments and Reauthorization Act of 1986
SDWA	-	Safe Drinking Water Act
SHPO	-	State Historic Preservation Officer
SPCC	-	Spill Prevention Control and Countermeasures
TCLP	-	Toxic Constituent Leaching Procedure
TSCA	-	Toxic Substances Control Act
TSDF	-	Treatment, Storage, and Disposal Facility
UFO	-	Unidentified Flying Object
USACE	-	U. S. Army Corps of Engineers
UST	-	Underground Storage Tanks
VOC	-	Volatile Organic Compound

Appendix D

Appendix D

Figures

1. Asphalt rubble waste (hazardous waste)
2. Transite and metal waste behind garage building (solid waste)
3. Storage of chemicals in garage building (hazardous materials)
4. " " "
5. " " "
6. " " "
7. Transite and metal waste behind garage building (solid waste)
8. Fuel Oil storage tank in old operators quarters (no secondary containment)
9. Storage of diesel, gasoline, kerosene, waste oil, and mixed wastes in garage (hazardous materials)
10. Storage of boat gasoline in garage building (hazardous materials)

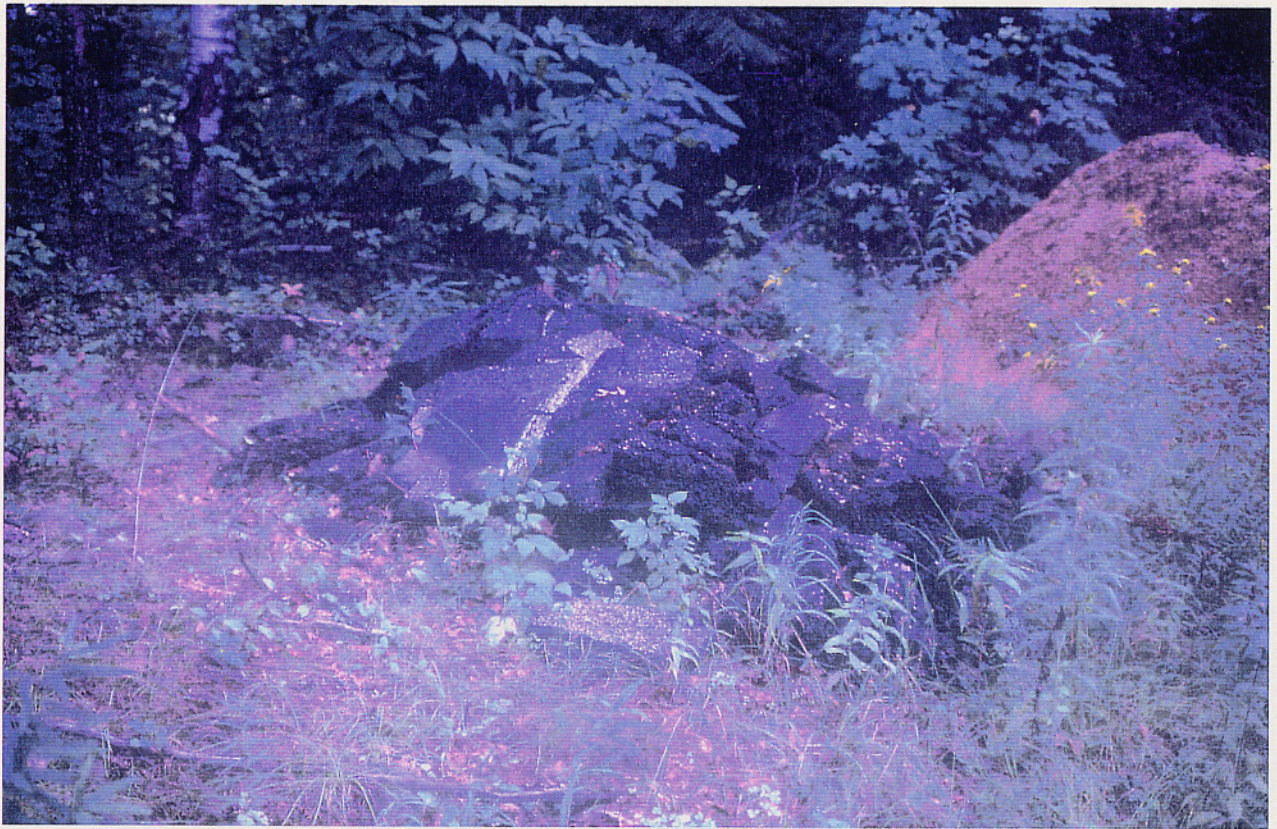


Figure 1



Figure 2



Figure 3



Figure 4



Figure 5



Figure 6



Figure 7

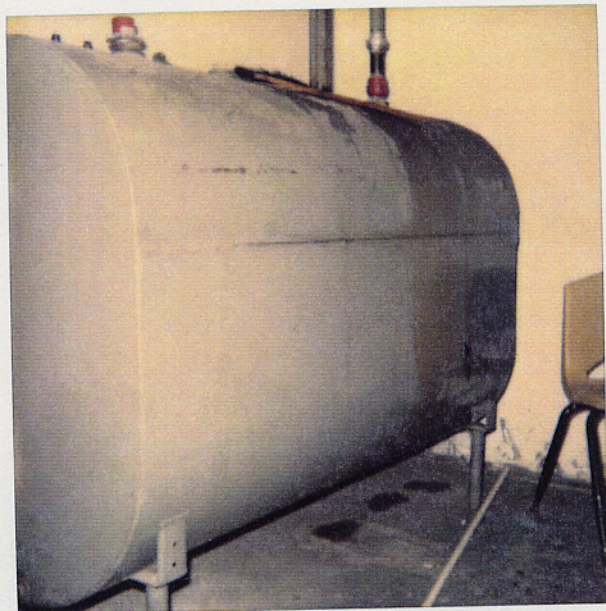


Figure 8



Figure 9



Figure 10

Appendix E

(NO CARBON REQUIRED)

WORK ORDER/COMPLETION REPORT (ER 37-2-10; 37-345-10)		DISTRICT New England Division		APPROPRIATION CC1010130000000 UC		PROJECT Barre Falls Asbestos	
CLASS OF WORK Testing of Environmental Samples				ORIGINAL ESTIMATE		DATE WORK IS TO START 10 July 91	
				DATE 26 Jul 91	AMOUNT \$ 300.00	ESTIMATED COMPLETION DATE 9 August 91	
METHOD OF WORK <input type="checkbox"/> CONTRACT <input type="checkbox"/> HIRED LABOR		BASIS FOR ORDER <input type="checkbox"/> JOB <input type="checkbox"/> FISCAL YEAR		TYPE OF ESTIMATE <input checked="" type="checkbox"/> ORIGINAL <input type="checkbox"/> REVISED		FEATURE AND SUB-FEATURE NR	
ACCOUNT NUMBER	DESCRIPTION OF WORK	ESTIMATED			ACTUAL		
		TOTAL QUANTITIES	TOTAL COST	UNIT COST	TOTAL QUANTITIES	TOTAL COST	UNIT COST
E96910253	Man-day	.2 EA	\$ 125.00	\$ 125.			
	Analysis of 3 samples for asbestos	1 EA	175.00	175.			
TOTALS			\$ 300.00				

"ENG Form 3013 work order/ completion report should be submitted to Budget Branch as soon as work is completed."

SUBMITTED BY C. L. Sabine 26 Jul 91
 CHARLES L. SABINE, OPERATIONS DIRECTORATE, CENED-OD-P
 (NAME) (ORGANIZATION UNIT) (DATE)

THIS WORK IS INCLUDED IN THE APPROVED PROGRAM
R. J. DREW, CHIEF, BUDGET DIVISION
 (NAME) (BUDGET & PROGRAM BRANCH) (DATE)

WORK DESCRIBED ABOVE HAS BEEN COMPLETED
9 Aug 91 C. L. Sabine 9 Aug 91
 (DATE) (NAME) (DATE)

AMOUNTS REPORTED ABOVE AS ACTUAL COSTS ARE REFLECTED IN THE COST ACCOUNTS AS OF THIS DATE
R. A. MALLARDO, CHIEF, F&A CENTER 8/5/91
 (NAME) (OFFICE OF THE COMPTROLLER) (DATE)

E. M. McDONALD, COMPTROLLER 8/1/91
 (NAME) (OFFICE OF THE COMPTROLLER) (DATE)

AMOUNTS REPORTED ABOVE AS ACTUAL COSTS ARE REFLECTED IN THE COST ACCOUNTS AS OF THIS DATE
 (NAME) (OFFICE OF THE COMPTROLLER) (DATE)

ENC 3013, Aug 81

EDITION OF 11

AY BE USED.

(Proponent)

(F-C)

(NO CARBON REQUIRED)

[illegible]

ENG Form 3013, Aug 81

EDITION OF 1 FEB 62 MAY BE USED.

(Proponent: DA...-RMF-C)

CENED-SO (385)

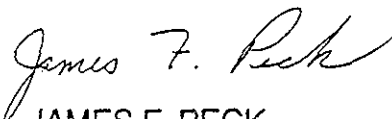
S: 17 January 1992
04 December 1991

MEMORANDUM FOR DISTRIBUTION A

SUBJECT: Hazardous Material Inventory

1. Reference 29 CFR 1910.1200, Hazard Communication
2. In accordance with the referenced standard, you are requested to perform an inventory of all chemical containing products purchased, used, or stored in your Directorate or Separate Office. Common household products are to be included in your inventory. Also, identify any hazardous material or chemicals generated during work operations (waste stream). A hazardous material inventory provides supervisors the ability to inform employees of chemical presence, potential hazards, toxic effects and control measures that are to be taken to minimize exposure.
3. The attached form will assist you in gathering all pertinent information. Any previous completed inventory in other formats may be acceptable provided they contain the same information as the data required on the attached form. Please forward your completed inventory to this office by 17 January 1992. I recommend you maintain a copy for yourself.
4. Questions or comments may be directed to the undersigned at 7216.

Attachments: as


JAMES F. PECK
Safety and Occupational
Health Manager

MEMORANDUM FOR DISTRIBUTION A

SUBJECT: HAZARDOUS MATERIAL INVENTORY

1. Reference Memorandum, same subject, dated 4 December 1991.
2. When performing your inventory identify products which may not be completely used in an operation and requires disposal. Current disposal practices should also be noted. You can provide this information by placing notations on the form next to the product listing.
3. Please use the following guidance to clarify the terms on the inventory form located on the referenced memorandum's attachment.

Building Name: The name of the building where the product is stored.

Code: Leave Blank all code blocks.

Work Area: The location where the product is used (if other than above).

Product Name: Identify the product name as it appears on the container. Include catalog or series number contained in the name.

NSN: The federal/national stock number, if known.

Manufacturer Name: The manufacturer's name as it appears on the container. Also provide the address at least once for each manufacturer.

Form: Provide the form the product comes in; i.e., gas, liquid, solid, gel, spray, spray can (not aerosol).

USE: Identify the products purpose.

User: The worker(s) job title who utilizes the product on a routine basis.

HAZARDOUS MATERIALS INVENTORY SHEET

DATE 31 December 1991BUILDING NAME Utility Building Barre Falls Dam CODE _____WORK AREA (ROOM) Various Locations On Project CODE _____PRODUCT NAME Ant-Freeze & Summer Coolant NSN _____MANUFACTURER NAME The Old World Trading Company, Inc. Des Plaines, IL 600FORM: LIQUID ☒ SOLID _____ GAS _____ OTHER _____ USE Protection for engine cooling system.USER Project Manager & Park Ranger, LaborerQUANTITIES: LBS _____ / * _____ GAL 6 / * 4 CUF _____ / * _____MSDS ON HAND? YES / ☒ NO * LAST INVENTORY

PRODUCT NAME Gear Oil SAE 80W-90 NSN _____MANUFACTURER NAME OilZum-White & Bagley Co. Worcester MA 01608FORM: LIQUID ☒ SOLID _____ GAS _____ OTHER _____ USE LubricantUSER Project Manager & Park Ranger & Laborer CODE _____QUANTITIES: LBS _____ / * _____ GAL 6 / * 6 CUF _____ / * _____MSDS ON HAND? YES / ☒ NO * LAST INVENTORY

PRODUCT NAME CRC 5-56 NSN _____MANUFACTURER NAME CRC Chemicals USA - Warminster, Penna 18974FORM: LIQUID ☒ SOLID _____ GAS _____ OTHER _____ USE Penetrating Spray LubricantUSER Project Manager, Park Ranger & Laborer CODE _____QUANTITIES: LBS _____ / * _____ GAL 5 / * 1 CUF _____ / * _____MSDS ON HAND? YES / ☒ NO * LAST INVENTORY

- Include office supplies i.e. toners, whiteout, etc.

21 November 1991

The above items contents are used and the

HAZARDOUS MATERIALS INVENTORY SHEET

DATE 31 December 1991BUILDING NAME Utility Building Barre Falls Dam CODE _____WORK AREA (ROOM) Various Locations On Project CODE _____PRODUCT NAME Gas Line Ant.- Freeze NSN _____MANUFACTURER NAME S.A.V. Industries Inc., Leominster MA. 0145FORM: LIQUID ☒ SOLID _____ GAS _____ OTHER _____ USE In vehicles to prevent gas freeze up and carburetor icingUSER Project Manager, Park Ranger, LaborerQUANTITIES: LBS _____ / * _____ GAL 2 / * 1 CUF _____ / *MSDS ON HAND? YES / ☒ NO * LAST INVENTORY

PRODUCT NAME Water Displacing Compound NSN 6850-00-142-9389MANUFACTURER NAME Chemapharm, 503 North 400 West, Salt Lake City, Utah 84103FORM: LIQUID ☒ SOLID _____ GAS _____ OTHER _____ USE Spray - Protects engine electrical sys from moisture and waterUSER Project Manager, Park Ranger & Laborer CODE _____QUANTITIES: LBS _____ / * _____ GAL 1.7 / * 1.5 CUF _____ / *MSDS ON HAND? YES / ☒ NO * LAST INVENTORY

PRODUCT NAME Never - See 2 NSN _____MANUFACTURER NAME Bostik - Boston Street, Middleton, MA. 01949FORM: LIQUID ☒ SOLID _____ GAS _____ OTHER _____ USE Spray - Parts protection from heat, corrosion, seizure, rust, peelingUSER Project Manager, Park Ranger & Laborer CODE _____QUANTITIES: LBS 14 / * 16 GAL _____ / * _____ CUF _____ / *MSDS ON HAND? YES / ☒ NO * LAST INVENTORY

- Include office supplies i.e. toners, whiteout, etc.

21 November 1991

The above items contents are used and

HAZARDOUS MATERIALS INVENTORY SHEET

DATE 31 December 1991BUILDING NAME Utility Building Barre Falls Dam CODE _____WORK AREA (ROOM) Various Locations On Project CODE _____PRODUCT NAME Gear Shield Extra Heavy Lubricant NSN _____MANUFACTURER NAME Lubriplate Division, Newark, N.J. 07105FORM: LIQUID ☒ SOLID _____ GAS _____ OTHER _____ USE Spray - Lubricant, water proofs, Rust protection for parts.USER Project Manager, Park Ranger, LaborerQUANTITIES: LBS 7.8 /* 14 GAL _____ /* _____ CUF _____ /* _____MSDS ON HAND? YES / ☒ NO * LAST INVENTORY

PRODUCT NAME Power Steering Fluid NSN _____Radiator Spec
Charlotte, NMANUFACTURER NAME International Harvester Inc. & Gunk Co., 2823FORM: LIQUID ☒ SOLID _____ GAS _____ OTHER _____ USE In vehiclesUSER Project Manager, Park Ranger, Laborer CODE _____QUANTITIES: LBS _____ /* _____ GAL .25 /* .25 CUF _____ /* _____MSDS ON HAND? YES / ☒ NO * LAST INVENTORY

PRODUCT NAME Deicing - Defrosting Fluid NSN 6850-00-835-0484MANUFACTURER NAME Atlantic Chemical Co., Ranson, W. VA 25438

Spray - on vehicle windshields

FORM: LIQUID ☒ SOLID _____ GAS _____ OTHER _____ USE to lessen or melt iceUSER Project Manager, Park Ranger, Laborer CODE _____QUANTITIES: LBS _____ /* _____ GAL .5 /* .87 CUF _____ /* _____MSDS ON HAND? YES / ☒ NO * LAST INVENTORY

- Include office supplies i.e. toners, whiteout, etc.

21 November 1991

The above items contents are used and

HAZARDOUS MATERIALS INVENTORY SHEET

DATE 31 December 1991BUILDING NAME Utility Building Barre Falls Dam CODE _____WORK AREA (ROOM) Various Locations On Project CODE _____PRODUCT NAME Brake Fluid NSN _____MANUFACTURER NAME Raybestos - 100 Oakview Drive, Trumbull, CT 06611FORM: LIQUID ☒ SOLID _____ GAS _____ OTHER _____ USE In VehiclesUSER Project Manager, Park Ranger, LaborerQUANTITIES: LBS _____ /* GAL .25 /* .25 CUF _____ /*MSDS ON HAND? YES / ☒ NO * LAST INVENTORY

PRODUCT NAME Hydraulic Jack Oil NSN _____MANUFACTURER NAME Master Chemical Corporation, Memphis, TN 38118FORM: LIQUID ☒ SOLID _____ GAS _____ OTHER _____ USE for hydraulic service jacksUSER Project Manager, Park Ranger, Laborer CODE _____QUANTITIES: LBS _____ /* GAL .25 /* .25 CUF _____ /*MSDS ON HAND? YES / ☒ NO * LAST INVENTORY

PRODUCT NAME Automatic Transmission Fluid NSN _____MANUFACTURER NAME Oilzom - White Bagley Co. - Worcester MA 01613-0706FORM: LIQUID ☒ SOLID _____ GAS _____ OTHER _____ USE In vehicles / Snow plowUSER Project Manager, Park Ranger, Laborer CODE _____QUANTITIES: LBS _____ /* GAL 1.75 /* 1.75 CUF _____ /*MSDS ON HAND? YES / ☒ NO * LAST INVENTORY

- Include office supplies i.e. toners, whiteout, etc.

21 November 1991

The above items contents are used and
the container is normally disposed

HAZARDOUS MATERIALS INVENTORY SHEET

DATE 31 December 1991

BUILDING NAME Utility Building Barre Falls Dam CODE _____

WORK AREA (ROOM) Various Locations On Project CODE _____

PRODUCT NAME Corrosion Preventive Compound NSN 8030-00-938-1947

MANUFACTURER NAME Steven Industries / Alex Corp Niagara Falls NY
FORM: LIQUID ☒ SOLID _____ GAS _____ OTHER _____ USE seizes, corrosion, lubrication
Spray - Protects parts from rust.

USER Project Manager, Park Ranger, Laborer CODE _____

QUANTITIES: LBS _____ / * _____ GAL 1.25 / * 1.25 CUF _____ / *

MSDS ON HAND? YES / ☒ NO * LAST INVENTORY

PRODUCT NAME Starting Fluid NSN _____

MANUFACTURER NAME Pyral Company, Albion Illinois 62806
FORM: LIQUID ☒ SOLID _____ GAS _____ OTHER _____ USE engines
Spray - to start

USER Project Manager, Park Ranger, Laborer CODE _____

QUANTITIES: LBS _____ / * _____ GAL _____ / * 3 CUF _____ / *

MSDS ON HAND? YES / NO * LAST INVENTORY

PRODUCT NAME Mixed Fuel - 2-cycle oil/Gas NSN _____

MANUFACTURER NAME _____
FORM: LIQUID ☒ SOLID _____ GAS _____ OTHER _____ USE Snowmobile & Fire Pump
used w/ chain saw, weed eater,

USER Project Manager, Park Ranger, Laborer CODE _____

QUANTITIES: LBS _____ / * _____ GAL 14 / * 14 CUF _____ / *

MSDS ON HAND? YES / ☒ NO * LAST INVENTORY

- Include office supplies i.e. toners, whiteout, etc.

21 November 1991

The above items contents are used and
H.

HAZARDOUS MATERIALS INVENTORY SHEET

DATE 31 December 1991

BUILDING NAME Utility Building Barre Falls Dam CODE _____

WORK AREA (ROOM) Various Locations On Project CODE _____

PRODUCT NAME Gasoline NSN _____

MANUFACTURER NAME Mobile _____

FORM: LIQUID ☒ SOLID _____ GAS _____ OTHER _____ USE fuel for gas engines

USER Project Manager, Park Ranger, Laborer _____

QUANTITIES: LBS _____ / * _____ GAL 15 / * 15 CUF _____ / * _____

MSDS ON HAND? YES / ☒ NO * LAST INVENTORY

PRODUCT NAME EP Multi Purpose Lubricant NSN _____

MANUFACTURER NAME Oilzum-Whire Bagley, Worcester MA 01613-0706

FORM: LIQUID _____ SOLID _____ GAS _____ OTHER ☒ USE Grease for equipment, vehicle, and gears

USER Project Manager, Park Ranger, Laborer CODE _____

QUANTITIES: LBS 28 / * 22 GAL _____ / * _____ CUF _____ / * _____

MSDS ON HAND? YES / ☒ NO * LAST INVENTORY

PRODUCT NAME Oil - 2 cycle NSN 23455

MANUFACTURER NAME Stihl Co. / Arctic Cat / Klean-Test-Cutter Co.

FORM: LIQUID ☒ SOLID _____ GAS _____ OTHER _____ USE Wood chisel & Fire Pump

USER Project Manager, Park Ranger, Laborer CODE _____

QUANTITIES: LBS _____ / * _____ GAL 3 / * 3.3 CUF _____ / * _____

MSDS ON HAND? YES / ☒ NO * LAST INVENTORY

- Include office supplies i.e. toners, whiteout, etc.

21 November 1991

The above items contents are used and

HAZARDOUS MATERIALS INVENTORY SHEET

DATE 31 December 1991

BUILDING NAME Utility Building Barre Falls Dam CODE _____

WORK AREA (ROOM) Various Locations On Project CODE _____

PRODUCT NAME Bar & Chain Lubricant NSN _____

MANUFACTURER NAME Stihl - Virginia Beach, Virginia 23425

FORM: LIQUID ☒ SOLID _____ GAS _____ OTHER _____ USE Chain Saw

USER Project Manager, Park Ranger, Laborer

QUANTITIES: LBS _____ / * _____ GAL 3 / * 4 CUF _____ / *

MSDS ON HAND? YES / ☒ NO * LAST INVENTORY

PRODUCT NAME Motor Oil NSN _____

MANUFACTURER NAME Oilzom - White & Bagley, Worcester MA 01613-0706

FORM: LIQUID ☒ SOLID _____ GAS _____ OTHER _____ USE In engines

USER Project Manager, Park Ranger, Laborer CODE _____

QUANTITIES: LBS _____ / * _____ GAL 10 / * 8.75 CUF _____ / *

MSDS ON HAND? YES / ☒ NO * LAST INVENTORY

PRODUCT NAME Arctic Cat Chain Lube NSN _____

MANUFACTURER NAME Arctic Cat - Thief River Falls Minn

FORM: LIQUID ☒ SOLID _____ GAS _____ OTHER _____ USE Snow Mobile Chain Lube

USER Project Manager, Park Ranger, Laborer CODE _____

QUANTITIES: LBS _____ / * _____ GAL 4 / * .4 CUF _____ / *

MSDS ON HAND? YES / ☒ NO * LAST INVENTORY

- Include office supplies i.e. toners, whiteout, etc.

21 November 1991

*The above items contents are used and
" " " is properly disposed.*

HAZARDOUS MATERIALS INVENTORY SHEET

DATE 31 December 1991BUILDING NAME Utility Building Barre Falls Dam CODE _____WORK AREA (ROOM) Various Locations On Project CODE _____PRODUCT NAME Oil - Hydraulic & Transmission NSN _____MANUFACTURER NAME Oilzum # ~~Worcester~~ Worcester MA 01613 ^{White Bayley} New Holland ^{PA 1755}FORM: LIQUID ☒ SOLID _____ GAS _____ OTHER _____ USE Ford TractorUSER Project Manager, Park Ranger, LaborerQUANTITIES: LBS _____ / * _____ GAL 2 / * 8 CUF _____ / *MSDS ON HAND? YES / ☒ NO * LAST INVENTORY*****
PRODUCT NAME Paint, Spray (Aerosol) NSN 8010-00-584-3150MANUFACTURER NAME LHB Industries ^{Berkeley, MO 63134} ~~LA 101~~FORM: LIQUID ☒ SOLID _____ GAS _____ OTHER _____ USE variety of small jobs ^{Paint used for a}USER Project Manager, Park Ranger & Laborer CODE _____QUANTITIES: LBS _____ / * _____ GAL 7 / * 7 CUF _____ / *MSDS ON HAND? YES / ☒ NO * LAST INVENTORY*****
PRODUCT NAME Antifreeze Mix NSN 6850-01-288-792MANUFACTURER NAME Douglas Chemical Company ^{Mixture for recording}FORM: LIQUID ☒ SOLID _____ GAS _____ OTHER _____ USE precipitation gaugeUSER Project Manager, Park Ranger CODE _____QUANTITIES: LBS _____ / * _____ GAL 2.5 / * 3.25 CUF _____ / *MSDS ON HAND? ☒ YES / NO * LAST INVENTORY

- Include office supplies i.e. toners, whiteout, etc.

21 November 1991

The above items contents are used and
disposed.

HAZARDOUS MATERIALS INVENTORY SHEET

DATE 31 December 1991BUILDING NAME Utility Building Barre Falls Dam CODE _____WORK AREA (ROOM) Various Locations On Project CODE _____PRODUCT NAME Thinner Synthetic Resin Enamel NSN 8010-00-160-5794MANUFACTURER NAME CSD Inc. Conroe TX 77305FORM: LIQUID ☒ SOLID _____ GAS _____ OTHER _____ USE To clean paint brushes and thin paint.USER Project Manager, Park Ranger, LaborerQUANTITIES: LBS _____ / * GAL 0 / * 2 CUF _____ / *MSDS ON HAND? YES / ☒ NO * LAST INVENTORY

PRODUCT NAME Thinner Paint Odorless NSN 8010-00-837-7969MANUFACTURER NAME CDS Inc. Conroe TX 77305FORM: LIQUID ☒ SOLID _____ GAS _____ OTHER _____ USE To clean paint brushes and thin paint.USER Project Manager, Park Ranger, Laborer CODE _____QUANTITIES: LBS _____ / * GAL 5 / * 8 CUF _____ / *MSDS ON HAND? ☒ YES / NO * LAST INVENTORY

PRODUCT NAME Thinner Poly E Lacquer NSN 8010-00-160-578MANUFACTURER NAME Phipps Prod CorpFORM: LIQUID ☒ SOLID _____ GAS _____ OTHER _____ USE To clean paint brushes and thin paint.USER Project Manager, Park Ranger, Laborer CODE _____QUANTITIES: LBS _____ / * GAL 0 / * 2 CUF _____ / *MSDS ON HAND? YES / ☒ NO * LAST INVENTORY

- Include office supplies i.e. toners, whiteout, etc.

21 November 1991

The above items contents are used and
it is properly disposed.

HAZARDOUS MATERIALS INVENTORY SHEET

DATE 31 December 1991BUILDING NAME Utility Building Barre Falls Dam CODE _____WORK AREA (ROOM) Various Locations On Project CODE _____PRODUCT NAME Boiled Linseed Oil NSN _____MANUFACTURER NAME Sterling-Malden MA 02148FORM: LIQUID ☒ SOLID _____ GAS _____ OTHER _____ USE Wood preservativeUSER Project Manager, Park Ranger, LaborerQUANTITIES: LBS _____ / * _____ GAL .75 / * .75 CUF _____ / *MSDS ON HAND? YES / ☒ NO * LAST INVENTORY

PRODUCT NAME Cresote wood preservative NSN _____MANUFACTURER NAME Sterling-Clark-Larson Corp, Malden MA 02148
Controls Rot, decayFORM: LIQUID ☒ SOLID _____ GAS _____ OTHER _____ USE and repels insectsUSER Project Manager, Park Ranger, Laborer CODE _____QUANTITIES: LBS _____ / * _____ GAL .75 / * .75 CUF _____ / *MSDS ON HAND? YES / ☒ NO * LAST INVENTORY

PRODUCT NAME Disinfectant, Detergent (Pine Oil) NSN 6840.00-584-3129MANUFACTURER NAME Light house for the blind of Houston, Houston, TX. 770FORM: LIQUID ☒ SOLID _____ GAS _____ OTHER _____ USE General purpose cleanerUSER Project Manager, Park Ranger, Laborer CODE _____QUANTITIES: LBS _____ / * _____ GAL 3.5 / * _____ CUF _____ / *MSDS ON HAND? YES / ☒ NO * LAST INVENTORY

- Include office supplies i.e. toners, whiteout, etc.

21 November 1991

The above items contents are used and

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HAZARDOUS MATERIALS INVENTORY SHEET

DATE 31 December 1991BUILDING NAME Utility Building Barre Falls Dam CODE _____WORK AREA (ROOM) Various Locations On Project CODE _____PRODUCT NAME Vandell Mark Remover NSN _____MANUFACTURER NAME ZEP, Atlanta, Georgia 30301FORM: LIQUID ☒ SOLID _____ GAS _____ OTHER Aerosol - spray to remove paint etc.USER Project Manager, Park Ranger, LaborerQUANTITIES: LBS 5 / * 6 GAL _____ / * CUF _____ / *MSDS ON HAND? YES / ☒ NO * LAST INVENTORY

PRODUCT NAME Propane Fuel NSN _____MANUFACTURER NAME Medina, 200 Chney St., Medina, New York 14103FORM: LIQUID _____ SOLID _____ GAS ☒ OTHER To heat bolts, locks and solderUSER Project Manager, Park Ranger, Laborer CODE _____QUANTITIES: LBS 2.6 / * 4.8 GAL _____ / * CUF _____ / *MSDS ON HAND? YES / ☒ NO * LAST INVENTORY

PRODUCT NAME Fuel Conditioner for Diesel NSN _____MANUFACTURER NAME Penray Co., Elk Grove, Illinois 60007FORM: LIQUID ☒ SOLID _____ GAS _____ OTHER Add to fuel - keeps injectors clean disperses moisture & Aids combustionUSER Project Manager, Park Ranger, Laborer CODE _____QUANTITIES: LBS _____ / * GAL 4.5 / * 3.5 CUF _____ / *MSDS ON HAND? YES / ☒ NO * LAST INVENTORY

- Include office supplies i.e. toners, whiteout, etc.

21 November 1991

The above items contents are used,

HAZARDOUS MATERIALS INVENTORY SHEET

DATE 31 December 1991

BUILDING NAME Utility Building Barre Falls Dam CODE _____

WORK AREA (ROOM) Various Locations On Project CODE _____

PRODUCT NAME Ronex MP Grease NSN _____

MANUFACTURER NAME Exxon Co., Houston, Texas 77001

FORM: LIQUID _____ SOLID _____ GAS _____ OTHER ☒ USE Grease for Gate Hoist
meters

USER Project Manager, Park Ranger, Laborer

QUANTITIES: LBS _____ / * _____ GAL 6 / * 6 CUF _____ / *

MSDS ON HAND? YES / (NO) * LAST INVENTORY

PRODUCT NAME Defender II NSN _____

MANUFACTURER NAME State Chemical, Cleveland Ohio 44114

FORM: LIQUID ☒ SOLID _____ GAS _____ OTHER _____ USE Rust treatment / Paint
polymers coating.

USER Project Manager, Park Ranger, Laborer CODE _____

QUANTITIES: LBS _____ / * _____ GAL 3.5 / * 4 CUF _____ / *

MSDS ON HAND? (YES) / NO * LAST INVENTORY

PRODUCT NAME SPW Formula 173 (Silicone) NSN _____

MANUFACTURER NAME State Chemical, Cleveland, Ohio 44114

FORM: LIQUID ☒ SOLID _____ GAS _____ OTHER _____ USE Spray - Prevents piling & sticking
of snow, grass & dirt

USER Project Manager, Park Ranger Laborer CODE _____

QUANTITIES: LBS _____ / * _____ GAL 5 / * 5.5 CUF _____ / *

MSDS ON HAND? (YES) / NO * LAST INVENTORY

- Include office supplies i.e. toners, whiteout, etc.

21 November 1991

*The above items contents are used
and the container is properly disposed.*

HAZARDOUS MATERIALS INVENTORY SHEET

DATE 31 December 1991

① The Glidden Co. BUILDING NAME Utility Building Barre Falls Dam CODE _____
Cleveland, Ohio 44115 WORK AREA (ROOM) Various Locations On Project CODE _____
② Sentry Paint Co. PRODUCT NAME Paint, Oil base NSN 8010-00-815-2692
Darby, PA 19023 MANUFACTURER NAME Chemray Coatings Corp; Glidden, Sentry Paint, Tru-
③ General Paint Co. FORM: LIQUID ☒ SOLID _____ GAS _____ OTHER _____ USE wood, concrete etc.
Chicago, Illinois 60614
④ Chemray Coatings Corp. USER Project Manager, Park Ranger, Laborer
Kenilworth, N.J.

QUANTITIES: LBS _____ / * GAL 42 / * 53 CUF _____ / *MSDS ON HAND? YES / ☒ NO * LAST INVENTORY

PRODUCT NAME Paint Latex NSN 8010-00-598-5733MANUFACTURER NAME Duron, Inc; Glidden, Tru-Test General Paint CompanyFORM: LIQUID ☒ SOLID _____ GAS _____ OTHER _____ USE wood, concrete etc.USER Project Manager, Park Ranger, Laborer CODE _____QUANTITIES: LBS _____ / * GAL 10.5 / * 9.5 CUF _____ / *MSDS ON HAND? YES / ☒ NO * LAST INVENTORY

PRODUCT NAME Wasp & Hornet Killer II NSN _____MANUFACTURER NAME Sprayer Products, Bedford Heights, OH 44146
To Kill Wasp &FORM: LIQUID ☒ SOLID _____ GAS _____ OTHER _____ USE HornetsUSER Project Manager, Park Ranger, Laborer CODE _____QUANTITIES: LBS 5 / * 3.5 GAL _____ / * CUF _____ / *MSDS ON HAND? YES / ☒ NO * LAST INVENTORY

- Include office supplies i.e. toners, whiteout, etc.

21 November 1991

The above items contents are used
and the container is properly disposed.

HAZARDOUS MATERIALS INVENTORY SHEET

DATE 31 December 1991

BUILDING NAME Utility Building Barre Falls Dam CODE _____

WORK AREA (ROOM) Various Locations On Project CODE _____

PRODUCT NAME Insecticide - Bio Guard NSN 6840-01-067-2137

MANUFACTURER NAME Chemscope Corporation, Arlington, Texas 76011
Spray - To Kill Flies, insects,

FORM: LIQUID ☒ SOLID _____ GAS _____ OTHER _____ USE Mosquitoes

USER Project Manager, Park Ranger, Laborer

QUANTITIES: LBS 1.3 / * 5.3 GAL _____ / * _____ CUF _____ / *

MSDS ON HAND? YES / ☒ NO * LAST INVENTORY

PRODUCT NAME A-1 Bleach NSN 681000-598-7316

MANUFACTURER NAME Austins Cos, Mass, PA 16046
Clean Toilets,

FORM: LIQUID ☒ SOLID _____ GAS _____ OTHER _____ USE disinfect

USER Project Manager, Park Ranger, Laborer CODE _____

QUANTITIES: LBS _____ / * _____ GAL 24 / * 19 CUF _____ / *

MSDS ON HAND? ☒ YES / NO * LAST INVENTORY

PRODUCT NAME Thoro clear 777 NSN _____

MANUFACTURER NAME Thoro System Products 7800 N.W., 38th Street
Miami, Florida, 3316
water repellent

FORM: LIQUID ☒ SOLID _____ GAS _____ OTHER _____ USE for masonry

USER Project Manager, Park Ranger, Laborer CODE _____

QUANTITIES: LBS _____ / * _____ GAL 2 / * 2 CUF _____ / *

MSDS ON HAND? YES / ☒ NO * LAST INVENTORY

- Include office supplies i.e. toners, whiteout, etc.

21 November 1991

*The above items contents are used
and the container is properly disposed.*

HAZARDOUS MATERIALS INVENTORY SHEET

DATE 31 December 1991

BUILDING NAME Utility Building Barre Falls Dam CODE _____

WORK AREA (ROOM) Various Locations On Project CODE _____

PRODUCT NAME Spray on, Wipe off NSN 7930-00-177-5243

MANUFACTURER NAME Light house for the blind of Houston/Houston, TX 77019

FORM: LIQUID ☒ SOLID _____ GAS _____ OTHER _____ USE General purpose detergent

USER Project Manager, Park Ranger, Laborer CODE _____

QUANTITIES: LBS _____ / * _____ GAL 1 / * 2 CUF _____ / *

MSDS ON HAND? (YES) / NO * LAST INVENTORY

PRODUCT NAME Cleaning Compound, Solvent Detergent NSN 7930-00-177-5217

MANUFACTURER NAME Chemscape Corporation, 3200 E. Rando Mill Rd. Arlington, TX 76011

FORM: LIQUID ☒ SOLID _____ GAS _____ OTHER _____ USE H.D. Cleaner; Removes Floor Wax, cleans, oil & grease off Equip

USER Project Manager, Park Ranger, Laborer CODE _____

QUANTITIES: LBS _____ / * _____ GAL 7 / * 10 CUF _____ / *

MSDS ON HAND? YES / (NO) * LAST INVENTORY

PRODUCT NAME Cleaning Compound Porcelain NSN 7930-01-073-9870

MANUFACTURER NAME Chemscape Corporation, 3200 E. Rando Mill Rd. Arlington, TX 76011

FORM: LIQUID ☒ SOLID _____ GAS _____ OTHER _____ USE To Clean porcelain, bathtubs, stainless steel Etc.

USER Project Manager, Park Ranger, Laborer CODE _____

QUANTITIES: LBS 13.5 / * 0 GAL _____ / * _____ CUF _____ / *

MSDS ON HAND? (YES) / NO * LAST INVENTORY

- Include office supplies i.e. toners, whiteout, etc.

21 November 1991

The above items contents are used and
the container is to be disposed of.

HAZARDOUS MATERIALS INVENTORY SHEET

DATE 31 December 1991BUILDING NAME Utility Building Barre Falls Dam CODE _____WORK AREA (ROOM) Various Locations On Project CODE _____PRODUCT NAME Protective Coating Compound NSN 8030-01-087-3589MANUFACTURER NAME Bulk Chemicals, Gretna, LA 70053FORM: LIQUID ☒ SOLID _____ GAS _____ OTHER _____ USE Dressing for vinyl, to guard against drying.USER Project Manager, Park Ranger, LaborerQUANTITIES: LBS _____ / * _____ GAL 2 / * 3 CUF _____ / *MSDS ON HAND? YES / ☒ NO * LAST INVENTORY

PRODUCT NAME Class Cleaner, Regular Type 1, Class 1 NSN 7930-00-664-6910MANUFACTURER NAME Lighthouse for the blind, Houston TX 77019FORM: LIQUID ☒ SOLID _____ GAS _____ OTHER _____ USE Cleans, glassUSER Project Manager, Park Ranger, Laborer CODE _____QUANTITIES: LBS _____ / * _____ GAL 1.5 / * 1.3 CUF _____ / *MSDS ON HAND? YES / ☒ NO * LAST INVENTORY

PRODUCT NAME Windshield Washer Abr. freeze NSN _____MANUFACTURER NAME Andrews Chemical Company, Manchester, NH 03103FORM: LIQUID ☒ SOLID _____ GAS _____ OTHER _____ USE for vehicles - windshield washer reUSER Project Manager, Park Ranger, Laborer CODE _____QUANTITIES: LBS _____ / * _____ GAL 6 / * 6 CUF _____ / *MSDS ON HAND? YES / ☒ NO * LAST INVENTORY

- Include office supplies i.e. toners, whiteout, etc.

21 November 1991

The above items contents are used and the
Container is properly disposed.

HAZARDOUS MATERIALS INVENTORY SHEET

DATE 31 December 1991

BUILDING NAME Utility Building Barre Falls Dam CODE _____

WORK AREA (ROOM) Various Locations On Project CODE _____

PRODUCT NAME Waste - Paint Thinners NSN _____

MANUFACTURER NAME _____

FORM: LIQUID ☒ SOLID _____ GAS _____ OTHER _____ USE _____

USER _____

QUANTITIES: LBS _____ / * _____ GAL 1.5 / * 5 CUF _____ / * _____

MSDS ON HAND? YES / NO * LAST INVENTORY

PRODUCT NAME _____ NSN _____

MANUFACTURER NAME _____

FORM: LIQUID _____ SOLID _____ GAS _____ OTHER _____ USE _____

USER _____ CODE _____

QUANTITIES: LBS _____ / * _____ GAL _____ / * _____ CUF _____ / * _____

MSDS ON HAND? YES / NO * LAST INVENTORY

PRODUCT NAME _____ NSN _____

MANUFACTURER NAME _____

FORM: LIQUID _____ SOLID _____ GAS _____ OTHER _____ USE _____

USER _____ CODE _____

QUANTITIES: LBS _____ / * _____ GAL _____ / * _____ CUF _____ / * _____

MSDS ON HAND? YES / NO * LAST INVENTORY

- Include office supplies i.e. toners, whiteout, etc.

21 November 1991

Note: All hazardous waste materials are disposed through
+12: F... 11.1

HAZARDOUS MATERIALS INVENTORY SHEET

DATE 31 December 1991BUILDING NAME Back Garage Barre Falls Dam CODE _____WORK AREA (ROOM) Various Locations On Project CODE _____PRODUCT NAME Diesel Fuel NSN _____MANUFACTURER NAME Mobile _____FORM: LIQUID ☒ SOLID _____ GAS _____ OTHER _____ USE Fuel for Ford TractorUSER Project Manager, Park Ranger, Laborer _____QUANTITIES: LBS _____ / * _____ GAL 25 / * 25 CUF _____ / *MSDS ON HAND? YES / ☒ NO * LAST INVENTORY

PRODUCT NAME Kerosene NSN _____MANUFACTURER NAME Mobile _____FORM: LIQUID ☒ SOLID _____ GAS _____ OTHER _____ USE For Kerosene HeaterUSER Project Manager, Park Ranger, Laborer CODE _____QUANTITIES: LBS _____ / * _____ GAL 5 / * 5 CUF _____ / *MSDS ON HAND? YES / ☒ NO * LAST INVENTORY

PRODUCT NAME _____ NSN _____

MANUFACTURER NAME _____

FORM: LIQUID _____ SOLID _____ GAS _____ OTHER _____ USE _____

USER _____ CODE _____

QUANTITIES: LBS _____ / * _____ GAL _____ / * _____ CUF _____ / *

MSDS ON HAND? YES / NO * LAST INVENTORY

- Include office supplies i.e. toners, whiteout, etc.

21 November 1991

The above items contents are used and
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HAZARDOUS MATERIALS INVENTORY SHEET

DATE 31 December 1991BUILDING NAME Back Garage Barre Falls Dam CODE _____WORK AREA (ROOM) Various Locations On Project CODE _____PRODUCT NAME Waste - Anti-Freeze & Summer Coolant NSN _____

MANUFACTURER NAME _____

FORM: LIQUID ☒ SOLID _____ GAS _____ OTHER _____ USE _____

USER _____

QUANTITIES: LBS _____ / * _____ GAL 3 / * 5 CUF _____ / * _____

MSDS ON HAND? YES / NO * LAST INVENTORY

PRODUCT NAME Waste - Oil & diesel Fuel NSN _____

MANUFACTURER NAME _____

FORM: LIQUID ☒ SOLID _____ GAS _____ OTHER _____ USE _____

USER _____ CODE _____

QUANTITIES: LBS _____ / * _____ GAL 1 / * 5 CUF _____ / * _____

MSDS ON HAND? YES / NO * LAST INVENTORY

PRODUCT NAME * Anti freeze - Oil - water - mix NSN _____

MANUFACTURER NAME _____

FORM: LIQUID ☒ SOLID _____ GAS _____ OTHER _____ USE Mixture for recording precipita

USER _____ CODE _____

QUANTITIES: LBS _____ / * _____ GAL 20 / * 4 CUF _____ / * _____

MSDS ON HAND? YES / NO * LAST INVENTORY

- Include office supplies i.e. toners, whiteout, etc.

21 November 1991

+ Note: This hazardous waste material is disposed through the Environmental lab.

Waste Anti-freeze is disposed through a local radiator repair shop.

Waste - Oil & Diesel is disposed through local machine shop.

MEMORANDUM FOR: Director of Operations

SUBJECT: Barre Falls Dam: Environmental Evaluation for Inlet Modification and Rock Removal Projects

1. This MFR provides an environmental evaluation for two O&M projects at the Barre Falls Dam. The evaluation is based on draft plans prepared by Engineering Directorate and observations made by Mr. Penko of IAD during a June 18 site visit.

2. Project Description: The rock removal project involves dredging about 250 cubic yards of material from a ca. 2500 square ft. rocky shoal situated just downstream of the Barre Falls Dam outlet. The material would be disposed of at existing upland borrow area, about one mile from the dam. Work would be done during the summer low flow period (July, August, September). Some clearing of vegetation along the river would be required to gain access to the site. The inlet modification project involves installation of a stop log structure in the dam's intake channel and removal of some loose rock. A temporary sand bag cofferdam would be placed around the work area to facilitate installation of the structure (stream flow would not be impacted by the coffer dam).

2. Existing Resources: The rocky shoal downstream of the outlet is heavily vegetated (ca. 90 % cover) with scrub-shrub wetland vegetation. Flowering dogwood and European buckthorn are predominant. Other species present include willows, red maple, aspen, black raspberry, meadowsweet, golden rod, joe-pye weed and grasses. The steep embankment adjacent to the shoal (see plans engineering plans) is heavily vegetated with hemlock, white pine, maple and other species. The Ware River supports a good cold water fishery. Species likely to be present downstream of the outlet include brown, brook, and rainbow trout, pickerel, brown bullhead, dace, and fallfish. Recent coordination with the US FWS and Massachusetts Natural Heritage program indicates that no threatened or endangered species are known to occur in the project area.

3. Environmental Impacts: Removal of the the shoal will result in loss of about 2500 square feet of vegetated scrub-shrub wetland habitat. This area will be replaced with an equivalent area of riverine (rock bottom) habitat. Some additional riparian vegetation will be cleared from the Ware River embankment in order to gain access to the site. Clearing should be kept to an absolute minimum since the existing riparian vegetation helps stabilize the steep embankment. Although material to be dredged is mostly rock and coarse grained sediments, dredging will undoubtedly disturb some fine grained material, and cause increased turbidity in the Ware River for a short distance downstream of the shoal. A siltation barrier should be placed around the shoal during the work to minimize water quality impacts. No adverse water quality impacts will result from the inlet modification project.

4. Permit/Coordination Requirements: Removal of the shoal is not considered to be a Section 404 action, and does not require state water quality certification. The minor (< 1 cubic yard) structural fill within the Barre Falls dam inlet also does not require water quality certification. The proposed work has been coordinated with Mr. Chris Thurlow of the Massachusetts Division of Fisheries and Wildlife and with Mr. Phil Morrison of the U.S. Fish and Wildlife Service. Neither agency expressed any objections to the project.

5. Please contact Mr. Mike Penko at ext. 7139 if you have any question about this memo.

Joseph L. Ignazio
Director of Planning

cc: Mr. Penko, 113N
Mr. Law, 115S
Mr. Hubbard, 113N
IAD File, 113N

OFFENSE/INCIDENT REPORT (ER-190-1-50)		RCS: DAEN-PM7
REPORT NO.	MPI/CID NO.	DATE OF REPORT 18 June 1992
TO: U.S. Army Corps of Engineers 424 Trapelo Road Waltham, MA 02254 ATTN: Provost Marshall		FROM: U.S. Army Corps of Engineers Barre Falls Dam RR #1, Box 154 Hubbardston, MA 01452
1. OFFENSE/INCIDENT TITLE CODE	<input type="checkbox"/> PERSON <input checked="" type="checkbox"/> PROPERTY <input type="checkbox"/> FRAUD <input type="checkbox"/> SEX OFFENSE	CORPS EMPLOYEE INVOLVED: <input type="checkbox"/> YES <input type="checkbox"/> NO IF YES, NUMBER INVOLVED _____ AS VICTIM _____ SUBJECT _____
2. LOCATION (Include county, state or territory in which person, installation facility or recreation area involved is located) Field south of overlook parking area, Town of Barre, MA, Worcester County.		TIME 1130 DATE 17 June 1992
3. REPORTED BY: Charles L. Sabine		ADDRESS Barre Falls Dam RR #1, Box 154 Hubbardston, MA 01452
4. TYPE/STATUS OF REPORT <input type="checkbox"/> CLOSED <input checked="" type="checkbox"/> INITIAL <input type="checkbox"/> FOLLOW-UP <input type="checkbox"/> ADD-ON <input type="checkbox"/> CMOIR		
5. DETAILS (who, what, when, where, why, how), SUPPORTING PHOTOGRAPHS, NEWSPAPER ARTICLES, ETC., MAY BE ATTACHED DO NOT ATTACH REPORTS FROM OTHER AGENCIES. IF ADDITIONAL SPACE IS REQUIRED, USE SEPARATE SHEET. <p style="text-align: center;">HAZARDOUS WASTE SPILL ON GOVERNMENT PROPERTY</p> <p>Refer to attached report, photographs, and diagrams.</p>		
6. <input checked="" type="checkbox"/> REPORTED <input type="checkbox"/> REFERRED TO <input type="checkbox"/> LOCAL POLICE <input type="checkbox"/> SHERIFF <input type="checkbox"/> STATE POLICE <input type="checkbox"/> MPI <input type="checkbox"/> CID <input type="checkbox"/> FBI <input checked="" type="checkbox"/> OTHER (SPECIFY) _____		
7. RECOMMENDED PREVENTIVE CORRECTIVE ACTION, IF APPROPRIATE (Refer to attached report). Refer to attached report.		
8. DOLLAR VALUE a. GOVERNMENT PROPERTY \$4,000.00 (est.) CONTRACTOR PROPERTY \$ _____		
9. OCCURRED ON/AGAINST <input checked="" type="checkbox"/> CORPS PERSONNEL, EQUIPMENT OR PROPERTY OTHER THAN RECREATION AREAS <input type="checkbox"/> RECREATION AREAS <input type="checkbox"/> PRIVATE PERSONNEL OR PROPERTY		INVOLVED <input type="checkbox"/> VANDALISM TO CORPS PROPERTY <input type="checkbox"/> LARCENY OF CORPS PROPERTY <input checked="" type="checkbox"/> OTHER
NAME, GRADE AND TITLE OF REPORTING OFFICER Charles L. Sabine - GS/9 - Project Manager		SIGNATURE <i>C. L. Sabine</i>

FILE COPY

Continuation of Incident Report

Hazardous Waste Spill on Government Property

Barre Falls Dam

17 June 92

1130 - 1500 While mowing the field south of the overlook parking area, Barre, MA, Worcester County, Park Ranger Ralph Gendron noticed that a part had come loose from the PTO section of the Ford tractor he was operating. He immediately stopped mowing, disengaged the PTO, and turned the engine off. Walt Smith, the summer aid, and Ralph inspected the PTO section to determine the problem and damage. They found that the four bolts securing the PTO seal housing flange were severed and oil was sprayed over the mower. The shank sections of the bolts were removed by Walt with his fingers, indicating that the bolts were never properly torqued. Ralph and Walt installed four new bolts and reassembled the PTO flange and cover assembly. After initial repairs were completed, they checked the reservoir and determined that 26 quarts of hydraulic fluid were needed to fill the reservoir. The reservoir had been-checked prior to mowing and had been full (48.3 quarts).

18 June 92

0800 Ralph notified me of the events of the prior day.

0930 I notified the Basin Office that a hazardous spill had occurred on Government property.

1030 I had Park Ranger Cheryl Perusse and Walt inspect the field to locate the spill area. We did not know at this time if the oil was spread over several acres or if it was isolated in one area. After locating the spill they estimated the contaminated area to be a strip six (6) inches wide by three hundred and sixty (360) feet long.

1145 I went to the site to inspect the area prior to contacting Project Operations. I had Walt and Cheryl mark the contaminated area with survey stakes and flagging.

1245 I notified Tom Rosato, Chief Facilities Management Branch. Tom called back and instructed me to follow the "Notification of Oil and Hazardous Substance Incidents" memo dated 21 May 1987. Tom directed me to keep an accurate and detailed account of all telephone contacts and events.

1320 I called the National Response Center in Washington, D.C., telephone # 1-800-424-8802. They asked the following questions after I gave a brief description of what happened:

- a) Name
- b) Organization
- c) Mailing address
- d) Town where spill occurred
- e) Name of road near spill
- f) County
- g) State
- h) Did spill get into water

- i) Quantity and material
- j) Did we do any clean up yet
- k) Have we notified anyone else

They assigned us report No. 122494 and informed me that they would notify EPA Region 1. I asked him what I should do next and was told that the EPA will contact me.

1405 Mr. Bill Verdone, EPA, Region 1, telephone # 617-860-4361 called and asked two questions.

- 1) Did I notify the state
- 2) Did I clean up the spill yet

I asked him what procedure I should follow and he offered the following:

- 1) The spill will have to be cleaned up, we don't want to contaminate a water supply.
- 2) The contaminated soil should be dug up, put in drums, banded, labeled and removed.
- 3). Call a licensed clean up company and have it removed.
- 4). Call Mass. Dept. of Environmental Protection @ 508-792-7653; if I don't call he will notify them.

He advised me that in the future, if another incident occurs, I must notify the following:

- 1) National Response Center
- 2) E.P.A.
- 3) Dept. of Environmental Protection
- 4) Town Fire Dept.
- 5) Local Board of Health

1420 I called the Mass. Dept. of Environmental Protection @ 508-792-7653 and was referred to Mr. Steve Cooperman. He asked the following questions:

- a) Location of spill
- b) What town
- c) Who spilled the material
- d) Time and date of spill
- e) Why did we take so long to notify; there is a two (2) hour notification period and we may be subject to a Failure to Notify Violation. I told him I was not aware of the notification time frame.
- f) Type of material
- g) Does it contain PCB's
- h) Quantity of material spilled
- i) What was impacted, water, soil, or both
- j) How did it happen
- k) Is there surface water near. I explained we were part of a public drinking water watershed.
- l) How far from a stream
- m) Address and name of party accepting responsibility for clean up - I told him Tom Rosato is very responsible. He contacted Tom, who

- designated me as the responsible party.
 n) Reminded me to contact Town Fire Dept.

He stressed that we must have a licensed environmental clean up company remove, clean up, and provide the proper Hazardous Waste Documentation. He also explained that used hydraulic oil falls into the Hazardous Waste Category.

1435 I notified Barre Fire Dept. and Barre Board of Health.

1440 I contacted Tom Rosato to update him. He suggested I get the names of licensed contractors and prices. He will work on arranging an advanced purchase order. I talked to Brian Condike, Chief, Environmental Laboratory, and he suggested I contact Inland Waters Pollution Control, Inc. Brian was very helpful in supplying information, procedures, and advice.

1450 I contacted: Mr. Noel Laing
 Inland Waters Pollution Control, Inc.
 275 Scituate Ave.
 Johnstown, R.I. 02919
 401/943-5300

I explained our situation, including payment procedures, and asked him to give me an estimate to do the work. His estimate was broken down as follows:

Labor	1,400.00	(4 men)
Drums	140.00	(4 ea.)
Disposal	<u>1,400.00</u>	(4 55 gal. drums)
	2,940.00	

Mr. Laing said he had no problem doing the work if Tom Rosato would give him a verbal commitment. He said he could have a crew on the road in a short time.

1500 I had Walt and Cheryl install additional stakes and flagging along the entire length of the spill. I called Tom to give him the contractors estimate and availability.

1510 Mr. Don Quinlon, Barre Fire Chief, arrived. He requested the following be submitted to him next week:

- 1) Map showing location of spill
- 2) Amount and type of material
- 3) Name of disposal company

1520 Tom called and said he had verified prices with the contractor and gave him permission to do the work. He explained that everything was approved through Norm Krause, Bernie Manor, and Jim Wong. He suggested I stay with the contractor and overtime was approved.

1530 I prepared and arranged notes, camera, and possible video. I re-inspected the site for adequate marking and for other spill areas. I called the contractor and he informed me that a crew was enroute to the site

1630 Tom called - DEP called him again and they want us to submit the

following:

- a) A one page letter describing events
- b) A copy of manifest

1700 Contractor arrived: 1 man, 1 stake bed truck.

After testing the area, he said we are lucky because the existing vegetation acted like a sponge or a speedy dry and held the oil, which kept it from seeping into the soil. If it had rained the oil would have seeped deeper into the soils. He began cutting the sod.

1830 Additional Contractor personnel arrived: 1 man, 1 Jeep Cherokee; 1 man, 1 stake bed truck with supplies.

The Contractor cut, with shovels, the sod on both sides of the oil soaked strip. The sod and soil was installed in HTW barrels and stored at the lower garage.

Contractor procedures:

- 1) Remove contaminated soil
- 2) Drum it ("put in drums") and seal
- 3) Label drums
- 4) Sample to laboratory for analysis
- 5) Store on site
- 6) Pick up in 4 or 5 days with manifest - hazardous waste cannot be transported until a manifest is obtained which includes the name of the "final disposal facility."

2100 Clean up completed.

19 June 92

Follow up calls with Tom Rosato and Jim Law.

The contractor called for our Hazardous Waste Disposal number. He needs the number before he can make out his manifest.

C. L. Sabine
Charles L. Sabine
Project Manager
Barre Falls Dam

Cause of Incident - Manufacturer Defective Part.

Ralph brought the severed bolts and housing to our local tractor mechanic for advice. In his opinion, the manufacturer installed the wrong type bolts for this particular application and they probably were not properly torqued. He recommended and provided 3/8-16 x 3/4 Grade #8 bolts which will be able to handle the stress and vibration created by the P.T.O.

Corrective Action

- a) Installed new type bolts.
- b) Inspect new bolts and assembly after four hours of operation.
- c) I notified John Parker, Project Manager, Littleville Lake, who has an identical tractor, and suggested he inspect his tractor. It appears at this time that he has the same problem.
- d) It is my understanding that Tom Rosato will notify all Basin Managers of this potential problem.

Note: The part that failed is not readily accessible for daily inspection - refer to manufacturers diagram.

General Notes

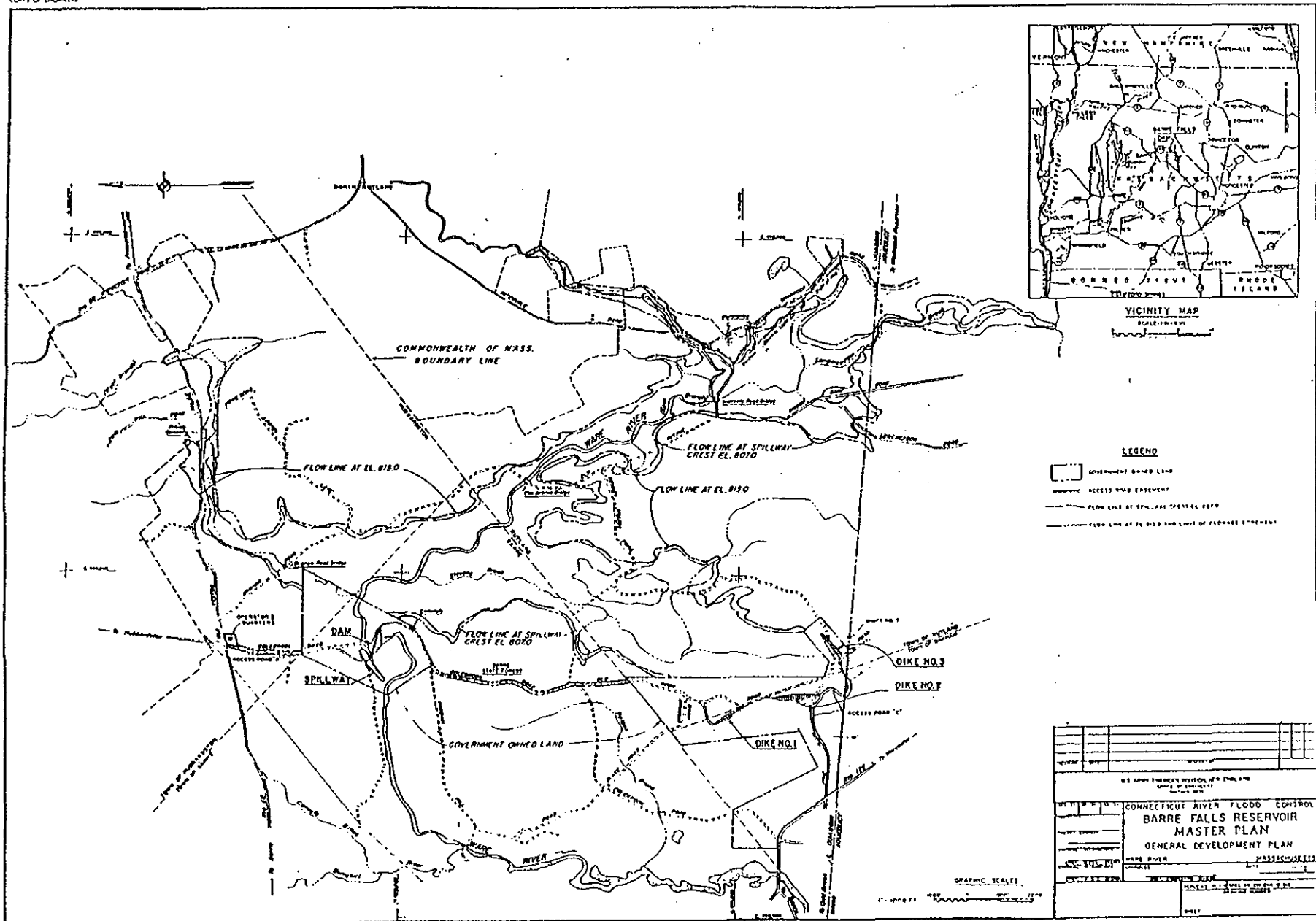
- 1) Contractor noted that we did an excellent job marking the spill area; it saved him a lot of time and the Corps money.
- 2) Contractor walked the area with me and he felt they removed all of the spill.
- 3) Be sure to mark and secure the area.
- 4) If possible, find out what the product is; as in this case we knew it was hydraulic oil.
- 5) Try to determine the quantity of spilled material; in this case there was no problem.
- 6) Keep accurate records and note everything.
- 7) As Tom suggested, it is a good idea to stay with the contractor from beginning to end.
- 8) Have your hazardous waste number available. The contractor cannot dispose of the waste without a site I.D. number.

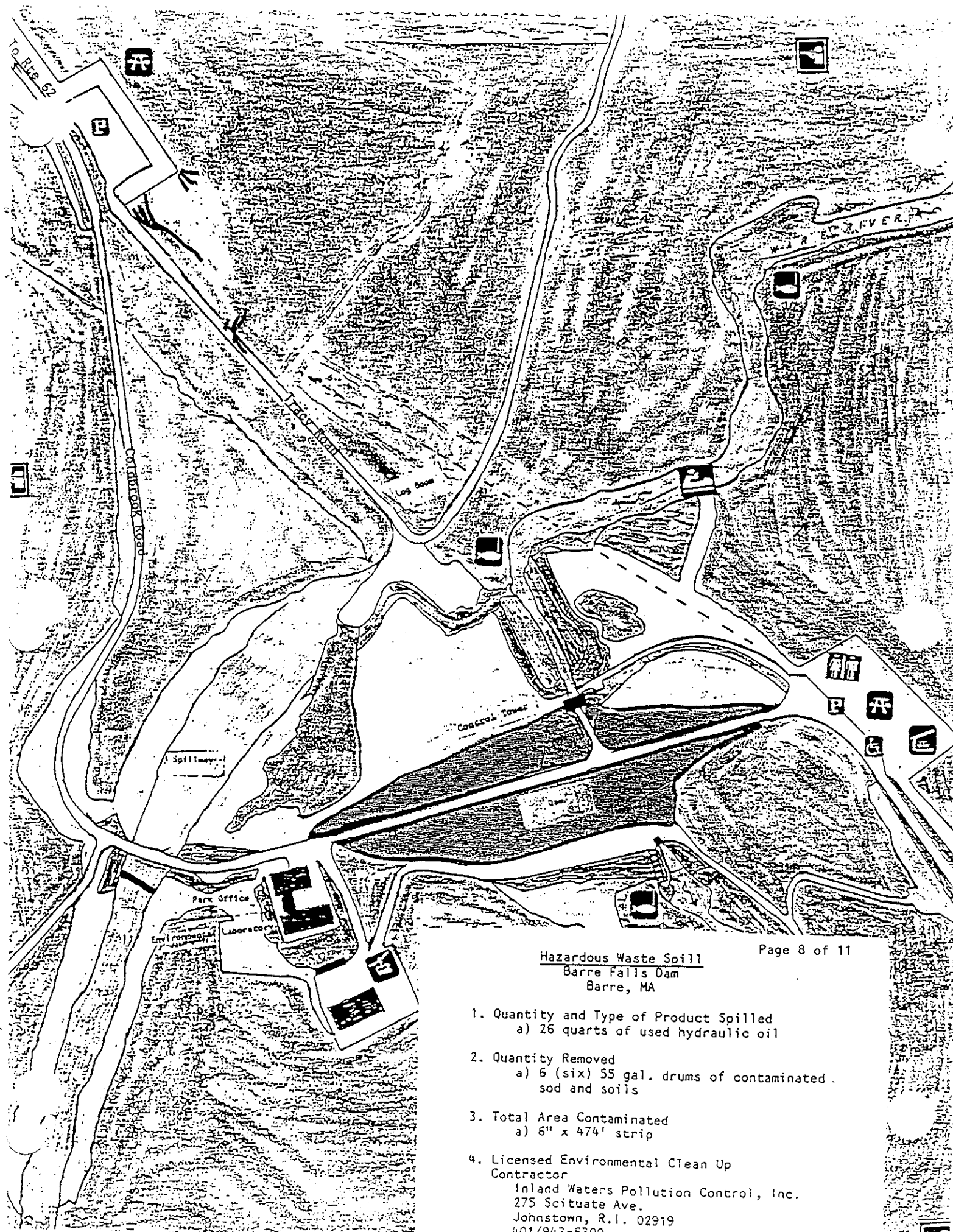
Note: The contractor was very responsive, cooperative, and professional. I feel they did an excellent job in a minimum amount of time.

C. L. Sabine
Charles L. Sabine
Project Manager
Barre Falls Dam

COPIES OF SHOWN

U.S. ARMY





Hazardous Waste Spill
Barre Falls Dam
Barre, MA

Page 8 of 11

1. Quantity and Type of Product Spilled
 - a) 26 quarts of used hydraulic oil
2. Quantity Removed
 - a) 6 (six) 55 gal. drums of contaminated sod and soils
3. Total Area Contaminated
 - a) 6" x 474' strip
4. Licensed Environmental Clean Up Contractor
 - a) Inland Waters Pollution Control, Inc.
275 Scituate Ave.
Johnstown, R.I. 02919
401/943-5300

SPECIFICATIONS

CAPACITIES

	ALL MODELS		
	U.S. Qts.	Imp. Qts.	Liters
Fuel Tank	64.0	53.2	60.5
Cooling System	11.0	9.2	10.4
Engine Crankcase (excluding filter)	6.0	5.0	5.7
Engine Crankcase (including filter)	7.0	5.8	6.6
Rear Axle:			
with I.P.T.O.	48.3	40.2	45.7
less I.P.T.O.	33.9	28.2	32.1
Hydraulic System (Loader)	34.8	28.8	32.9
Transmission:			
4 × 4 Power Reversing	19.0	15.8	18.0
8 × 8 Power Reversing	19.0	15.8	18.0
6 × 4 Manual Reversing	12.0	10.0	11.4
Front Axle:			
Differential Housing	5.81	4.84	5.50
Hub (each)	1.13	0.94	1.06

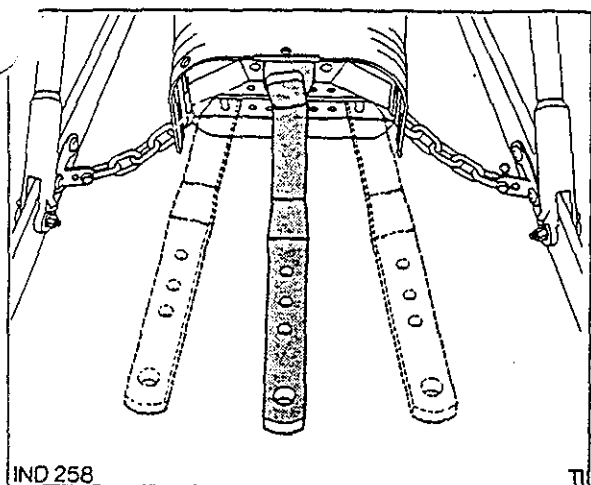
*Rear Axle with Front Wheel Drive option add 1.9 US. Qts.

LUBRICANTS

Transmission – Power Reversing	Ford M2C-41-B or Ford M2C-159-A/B (10w30 only)
– Manual Reversing	Ford M2C-86-B, M2C-159-A/B or M2C-134-B/C
Power Steering Reservoir	Ford M2C-41B or M2C-159-A/B
Front Differential Casing and Hubs (front wheel drive)	Ford M2C-86-B, M2C-94-A, M2C-159-A/B or M2C-134-B/C
Lubrication Fittings	Ford M1C-137-A/B or M1C-75-B
Hydraulic System (Loader)	Ford M2C-48-C, M2C-101-B, M2C-121-B/C or M2C-159-A/B (10w30 only)
*Rear Axle and Tractor Hydraulic System	* Ford M2C-86-B, M2C-159-A/B or M2C-134-B/C

*When operating in temperatures below + 20°F (– 7°C), Ford Blending Fluid ESNM99C-69-A must be mixed with M2C-86-B or M2C-134-B transmission and rear axle oils. The blending fluid contains special additives which maintain the protective qualities of the base oil thus minimising wear of the transmission gears. Do not use Blending Fluid with M2C-159-A/B or M2C-134-C oil. When using M2C-159-A/B oil, select the viscosity grade appropriate to your climate (see temperature chart on the following page).

—HYDRAULIC LIFT AND P.T.O. CONTROLS AND OPERATION—



13. Swinging Drawbar Positions

Swinging Drawbar (where fitted)

A swinging drawbar may be fixed in any one of five positions or allowed to swing the full width of the hanger, Figure 13.

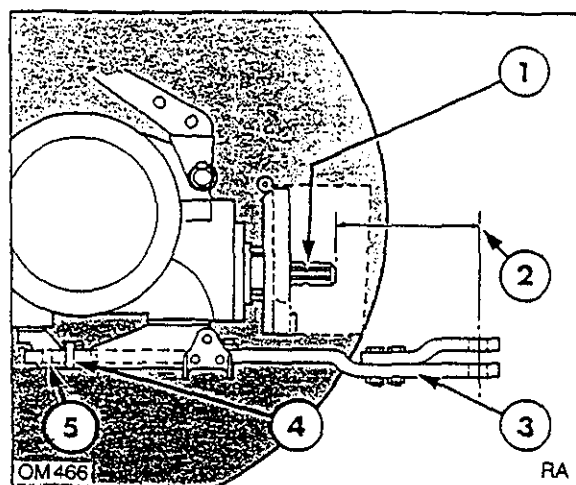
Fasten the drawbar in position using the swing limiter pins when pulling equipment which requires accurate positioning and when transporting equipment.

Allow the drawbar to swing when pulling ground engaging equipment which does not require accurate positioning. This will make steering and turning easier.



WARNING: Always secure the drawbar to prevent swinging when transporting equipment or when operating any but ground engaging equipment.

IMPORTANT: When transporting equipment on the highway it is recommended that a safety chain having a tensile strength equal to the gross weight of implement be installed between the tractor and implement hitch. See Figure 15.



14. Drawbar Locating Pin Holes

1. P.T.O. Output Shaft
2. Horizontal distance – shaft to hitch pin
3. Drawbar
4. 14 in. (356 mm) position
5. 16 in. (406 mm) position

The drawbar is adjustable for height and projection relative to the end of the P.T.O. shaft. To vary the height of the drawbar/implement hitch point, invert the drawbar.

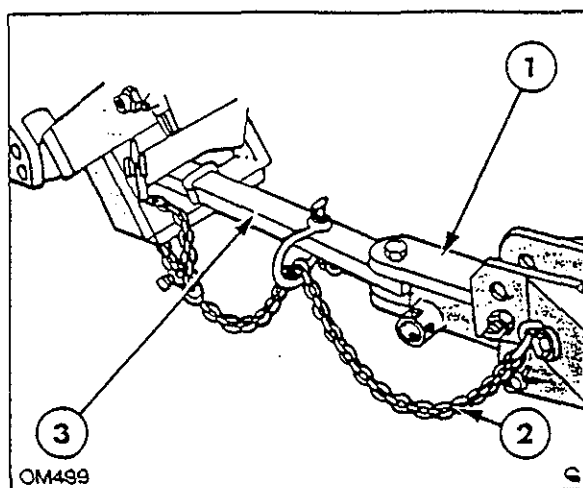
The front locating pin may be inserted in either of two holes in the drawbar to vary the P.T.O. shaft to hitch point distance, as shown in Figure 14.

IMPORTANT: Always use the close-coupled position (hole 4) when towing equipment exerting high static downward forces, such as two wheeled trailers, etc., or when operating P.T.O. driven equipment.



WARNING: Always use the drawbar or lower links in the lowered position for pull-type work.

NOTE: When supporting equipment on the drawbar ensure that the total weight on the rear axle does not exceed the maximum rear axle loading or the rear tire load capacity, whichever is the lower. (See "TRACTOR WEIGHTING" in Section A of this Manual and "REAR TIRE PRESSURES AND LOADS" in the "Specifications" Section A).



15. Safety Chain

1. Implement
2. Chain
3. Tractor drawbar

Safety Chain (Accessory)

When towing implements on the highway, use a safety chain (Figure 15) with tensile strength equal to or greater than the gross weight of the implement to be towed by the tractor. This will control the implement if the hitch pin is displaced.

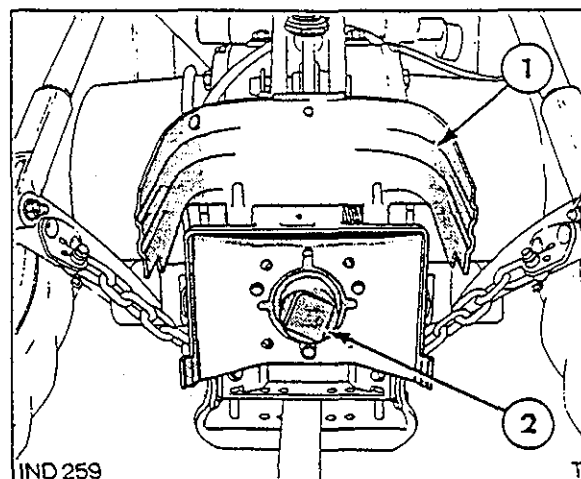
After attaching the safety chain, make a trial run by driving the tractor to the right and to the left for a short distance to check the safety chain adjustment. If necessary, re-adjust to eliminate a tight or loose chain.

Check the implement operator's manual for implement weight and attaching hardware specifications.

Safety chains and attaching hardware are available from your dealer.

INDEPENDENT POWER TAKE-OFF

The power take-off (P.T.O.) on your tractor transfers engine power directly to mounted or trailed equipment. The P.T.O. shaft is the standard 6-spline, 1 1/8 inch (34.9 mm) diameter shaft designed for 540 rev/min operation, the speed at which most P.T.O. actuated equipment is designed to run.



16. Power Take-Off

1. Guard
2. Safety cap

ATTACHING EQUIPMENT TO THE P.T.O. SHAFT



WARNING: Before attaching or detaching equipment:

- Apply the parking brake.
- Move the main and high/low gearshift levers to neutral and the power-reversing lever to neutral.
- Disengage the P.T.O. by pulling the P.T.O. selector rearwards.
- Stop the engine and ensure that the P.T.O. shaft has stopped turning.

Mount or hitch the equipment to the tractor as outlined in either "THREE-POINT LINKAGE" or "ATTACHING AND DETACHING TRAILED EQUIPMENT".

To connect P.T.O. driven equipment to the P.T.O. shaft, tilt the guard upwards, as shown in Figure 16, to gain access. It is not necessary to remove the guard. Unscrew and remove the safety cap, attach the implement to the P.T.O. shaft and lower the guard. Ensure the equipment driveshaft coupler lock pin or detent balls engage the groove in the P.T.O. shaft. If the coupler does not have a lock, pin the coupler to the shaft.

INCIDENT REPORT 18 JUNE 92

BARRE FALLS DAM

PHOTOGRAPHS

PHOTOGRAPH NUMBER

DESCRIPTION

1, 2, 3, 4, 6, 7

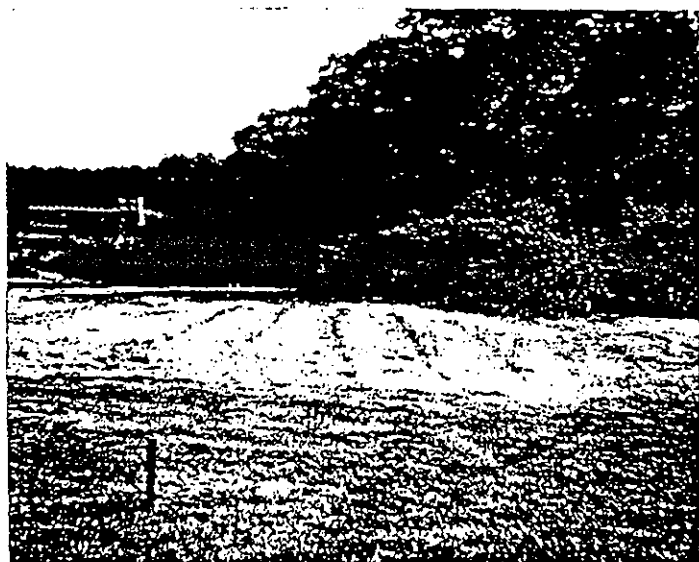
Spill at the southwest corner of the parking area adjacent to the dam access road. NOTE: Survey stakes and flagging denote spill areas.

5, 8

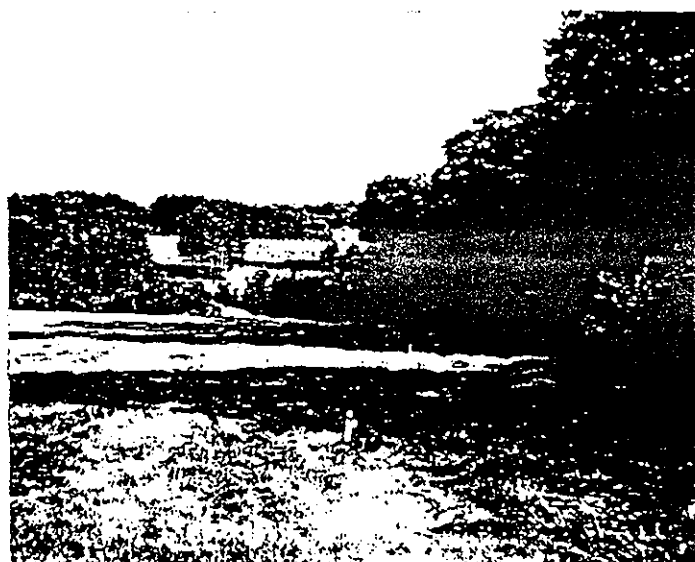
Employees of Inland Waterways Pollution Control Inc. removing contaminated soil.

All photographs were taken on 18 June 92.

HAZARDOUS WASTE SPILL AT BARRE FALLS DAM, MASSACHUSETTS, 17 JUNE 1992
ATTACHMENT TO INCIDENT REPORT DATED 18 JUNE 1992.



1



2



3



4

HAZARDOUS WASTE SPILL AT BARRE FALLS DAM, MASSACHUSETTS, 17 JUNE 1992
ATTACHMENT TO INCIDENT REPORT DATED 18 JUN 1992.



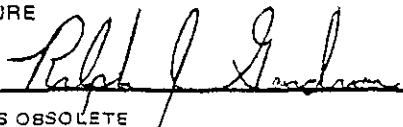
5



7

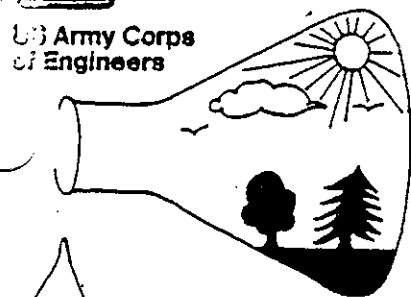


6

OFFENSE/INCIDENT REPORT (ER-190-1-50)		RCS: DAEN-PM7
REPORT NO.	MPI/CID NO.	DATE OF REPORT 6 November 1991
TO: U.S. Army Corps of Engineers 424 Trapelo Road Waltham, MA 02254 ATTN: Provost Marshall		FROM: U.S. Army Corps of Engineers Barre Falls Dam RR #1, Box 154 Hubbardston, MA 01452
1. OFFENSE/INCIDENT TITLE _____ CODE _____	<input type="checkbox"/> PERSON <input type="checkbox"/> PROPERTY <input type="checkbox"/> FRAUD <input type="checkbox"/> SEX OFFENSE	CORPS EMPLOYEE INVOLVED: <input type="checkbox"/> YES <input type="checkbox"/> NO IF YES, NUMBER INVOLVED _____ AS VICTIM _____ SUBJECT _____
2. LOCATION (Include county, state or territory in which person, installation facility or recreation area involved is located)		TIME _____ DATE _____
3. REPORTED BY:		ADDRESS _____
4. TYPE/STATUS OF REPORT <input type="checkbox"/> CLOSED <input type="checkbox"/> INITIAL <input checked="" type="checkbox"/> FOLLOW-UP <input type="checkbox"/> ADD-ON <input type="checkbox"/> CMOIR		
5. DETAILS (who, what, when, where, why, how), SUPPORTING PHOTOGRAPHS, NEWSPAPER ARTICLES, ETC., MAY BE ATTACHED DO NOT ATTACH REPORTS FROM OTHER AGENCIES. IF ADDITIONAL SPACE IS REQUIRED, USE SEPARATE SHEET.		
1. Reference ENG 4337 report dated 11 July 91, Subject: Illegal dumping at Crossover Road. 2. On 9 August 91 received the attached Analytical Data Report from the Environmental Laboratory; no hazardous material was present. The cost for the analysis was \$300.00 3. The illegal dumped roofing material was removed from the Crossover Road on 14 August 91 and disposed in the on site dumpster. The task was completed by project personnel at a cost of \$38.00.		
6. <input type="checkbox"/> REPORTED <input type="checkbox"/> REFERRED TO <input type="checkbox"/> LOCAL POLICE <input type="checkbox"/> SHERIFF <input type="checkbox"/> STATE POLICE <input type="checkbox"/> MPI <input type="checkbox"/> CID <input type="checkbox"/> FBI <input type="checkbox"/> OTHER (SPECIFY)		
7. RECOMMENDED PREVENTIVE CORRECTIVE ACTION, IF APPROPRIATE		
8. DOLLAR VALUE a. GOVERNMENT PROPERTY \$ _____ b. CONTRACTOR PROPERTY \$ _____		
9. OCCURRED ON/AGAINST <input type="checkbox"/> CORPS PERSONNEL, EQUIPMENT OR PROPERTY OTHER THAN RECREATION AREAS <input type="checkbox"/> RECREATION AREAS <input type="checkbox"/> PRIVATE PERSONNEL OR PROPERTY		INVOLVED <input type="checkbox"/> VANDALISM TO CORPS PROPERTY <input type="checkbox"/> LARCENY OF CORPS PROPERTY <input type="checkbox"/> OTHER
NAME, GRADE AND TITLE OF REPORTING OFFICER Ralph J. Gendron - GS 7 - Park Ranger		SIGNATURE 



U.S. Army Corps
of Engineers



ENVIRONMENTAL
LABORATORY

Analytical Data Report

BARRE FALLS DAM

U.S. Army Corps of Engineers
New England Division
Environmental Laboratory
Hubbardston, MA 01452

Date: 9 August 1991

Brian J. Condi
Acting Chief, Environmental Laboratory

ADVANCE COPY

TABLE OF CONTENTS

1. Case Summary
2. Sample Listing
3. Laboratory Data
4. Chains of Custody
5. Cooler Receipt Form

ADVANCE COPY

1. Case Summary

ADVANCE COPY

BARRE FALLS DAM

ENV. NO.	DATE	FIELD DESCRIPTION	MATRIX
13931	7/10/91	BF-1	Tarpaper
13932	7/10/91	BF-2	Shingle
13933	7/10/91	BF-3	Shingle

ADVANCE COPY

3. Laboratory Data

ADVANCE COPY

NEW ENGLAND DIVISION, ENVIRONMENTAL LABORATORY

PRODUCED ON

08/06/91
07:43

BARRE FALLS ASBESTOS

METHOD 600/M4-82-020: BULK ASBESTOS (%)

ENV NO.	FIELD DESCRIPTION	ASBESTOS
13931	BF-1 Tarpaper	< 1%
13932	BF-2 Shingle	< 1%
13933	BF-3 Shingle	< 1%

ADVANCE COPY

4. Chains of Custody

ADVANCE COPY

CHAIN OF CUSTODY RECORD

PROJ. NO.		PROJECT NAME					
SAMPLERS: (Signature)							
STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CON- TAINERS	REMARKS
13931	10 July 91	1025	✓	✓	BF-1 Tailpaper	1	<div style="writing-mode: vertical-rl; transform: rotate(180deg);">ADVANCE COPY</div>
13932	↓	1031	✓	✓	BF-2 shingle	1	
13933	✓	1035	✓	✓	BF-3 "	1	
Relinquished by: (Signature)		Date / Time		Received by: (Signature)		Relinquished by: (Signature)	
Nancy L. Amidon		12 July 91 1315		R. Lopez			
Relinquished by: (Signature)		Date / Time		Received by: (Signature)		Relinquished by: (Signature)	
Relinquished by: (Signature)		Date / Time		Received for Laboratory by: (Signature)		Date / Time	Remarks

PROJECT. NORRIS FALLS

DATE: 10 June 91

COLLECTOR(S): N. Arndson

SAMPLE #	FIELD DESCRIPTION/ STATION	TIME	Notes
13931	BF-1	1020	<u>Hshestas</u>
13932	BF-2	1025	
13933	BF-3	1030	
<p>Samples were taken under the direction of the Project Manager (C. Sobrie) and it was determined mutually that two kinds of shingles were present</p>			
ADVANCE COPY			

5. Cooler Receipt Form

ADVANCE COPY

Cooler received on 7/12/91 and opened on 7/15/91 by 12. Lurdgoret
Sample D. Lurdgoret
(signature)

- 1) Were custody seals on outside of cooler? Yes No
If Yes, how many and location(s) Sample were hand delivered by Lab Tech.
- 2) Were date and signature on seal(s) correct? Yes No
no seals were used.
- 3) Were custody papers taped to lid inside cooler? Yes No
hand delivered
- 4) Were custody papers properly filled out (ink, signed, etc.) Yes No
- 5) Did you sign custody papers in appropriate place? Yes No
- 6) Did you attach shipper's packing form to this form? Yes No
Lab. Tech. Samples hand delivered
- 7) What kind of packing material was used? Yes No
none, samples hand delivered.
- 8) Was sufficient ice used? Yes No
- 9) Were all bottles sealed in separate plastic bags? Yes No
hand delivered.
- 10) Did all ~~bottles~~ containers arrive in good condition? Yes No
- 11) Were all bottle labels complete? Yes No
Sample description on containers only
(No., date, analysis, preservative, sign., etc.)
- 12) Did all bottle labels agree with custody papers? Yes No
- 13) Were correct bottles used for tests indicated? Yes No
- 14) Were VOA vials checked for absence of air/headspace and noted if found? N/A Yes No
- 15) Was sufficient amount of sample sent in each bottle? Yes No
- 16) Were air volumes noted for air samples? N/A Yes No
- 17) Were initial weights noted for pre-weighed filters? N/A Yes No

Explain any discrepancies: _____

ADVANCE COPY

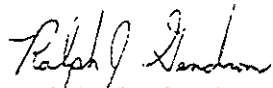
_____ was contacted on _____ by _____
_____ resolve discrepancies.

11 Jul 91

MEMORANDUM FOR: Basin Manager, L/C/R/B

SUBJECT: Illegal Dumping

1. On 4 July 91, Ranger Rick Magee, while on routine patrol, discovered illegal dumping at Crossover Road, an isolated site at the dike area.
2. It has been determined that the majority of the material found is discarded roofing shingles and roofing felt.
3. Prior to disposal of the materials it will be necessary to determine if any hazardous material, such as asbestos, is present.
4. I am requesting that a work order be submitted for the Environmental Lab to test the materials and forward the test results with recommendations to the Project Manager at Barre Falls Dam.
5. After consulting with Mr. Brian Condike, acting Chief of the Environmental Lab, he estimated that the cost to test the above material should not exceed \$300.00.

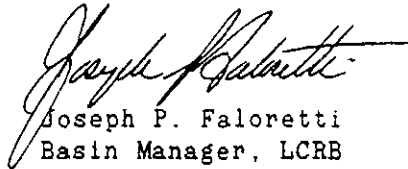

Ralph J. Gendron
Park Ranger

18 JUL 91

MEMORANDUM FOR: Chief, Project Operations Division

SUBJECT: Testing Services by NED Environmental Lab

1. Reference: a). CENED-OD-PL (200-1c), 11 JUL 91, Subject: Illegal Dumping (copy attached).
2. After discussions with Chuck Sabine on 8 Jul 91 and with you on 9 & 16 Jul 91, I gave Chuck verbal approval to have the materials dumped at Barre Falls tested for the presence of asbestos by the NED environmental Lab.
3. The cost code for the testing will be CC1010130000000 UC Barre Falls Dam.
4. After receipt of the test results, we will arrange for disposal of the dumped materials in accordance with applicable local, state and federal regulations.


Joseph P. Faloretti
Basin Manager, LCRB

Attachment

CF: LCRB files
BFD✓

OFFER

SER-190-1-501

RCS: DAEN-PM7

REPORT NO.

MPI/CID NO.

DATE OF REPORT

11 July 1991

TO: U.S. Army Corps of Engineers
424 Trapelo Road
Waltham, MA 02254
ATTN: Provost Marshall

FROM: U.S. Army Corps of Engineers
Barre Falls Dam
RR #1, Box 154
Hubbardston, MA 01452

1. OFFENSE/INCIDENT

TITLE

CODE

- ☐ PERSON
☐ PROPERTY
☐ FRAUD
☐ SEX OFFENSE

CORPS EMPLOYEE INVOLVED: ☐ YES ☐ NO

IF YES, NUMBER INVOLVED

AS VICTIM

SUBJECT

2. LOCATION (Include county, state or territory in which person, installation facility or recreation area involved is located)

TIME

DATE

3. REPORTED BY:

ADDRESS

4. TYPE/STATUS OF REPORT

☐ CLOSED☒ INITIAL☐ FOLLOW-UP☐ ADD-ON☐ CMOIR

DETAILS (who, what, when, where, why, how), SUPPORTING PHOTOGRAPHS, NEWSPAPER ARTICLES, ETC., MAY BE ATTACHED DO NOT ATTACH REPORTS FROM OTHER AGENCIES. IF ADDITIONAL SPACE IS REQUIRED, USE SEPARATE SHEET.

On 4 July 91 Ranger Rick Magee, while on routine patrol, discovered illegally dumped materials at Crossover Road, an isolated site at the dike area.

I contacted the MDC Police on 4 July 91 to report the dumping. Ralph Gendron and I inspected the site and took pictures of the discarded materials on Monday, 8 July 91. We determined the majority of the materials to be asphalt roofing shingles and roofing felt.

Chuck Sabine notified Joe Faloretti on Monday, 8 July 91.

6. ☒ REPORTED ☐ REFERRED TO ☐ LOCAL POLICE ☐ SHERIFF
☐ STATE POLICE ☐ MPI ☐ CID ☐ FBI ☒ OTHER (SPECIFY) MDC

7. RECOMMENDED PREVENTIVE CORRECTIVE ACTION, IF APPROPRIATE

A memo to the Basin Manager has been submitted requesting that the Environmental Lab test the subject material. It will be necessary to have results of the tests prior to disposal. The estimated cost to test the material is \$300.00. After testing is complete, disposal of the material is required. The estimated cost of disposal is unavailable at this time.

8. DOLLAR VALUE

a. GOVERNMENT PROPERTY

\$

b. CONTRACTOR PROPERTY

\$

9. OCCURRED ON/AGAINST

- ☐ CORPS PERSONNEL, EQUIPMENT OR PROPERTY
OTHER THAN RECREATION AREAS
☐ RECREATION AREAS
☐ PRIVATE PERSONNEL OR PROPERTY

INVOLVED

- ☐ VANDALISM TO CORPS PROPERTY
☐ LARCENY OF CORPS PROPERTY
☐ OTHER

NAME, GRADE AND TITLE OF REPORTING OFFICER

Cheryl Perusse - GS/4 - Park Ranger

SIGNATURE

Cheryl A. Perusse